

CHRISTI CRADDICK, *CHAIRMAN*  
RYAN SITTON, *COMMISSIONER*  
WAYNE CHRISTIAN, *COMMISSIONER*



RANDALL D. COLLINS, *DIRECTOR*

# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

January 31, 2017

RE: Alcoa Inc.; Docket No. C17-0007-SC-01-E  
Show Cause Proceeding on Portion of Docket  
Permit No. 1F, Bond Replacement  
Dismissal order

(By first-class mail and e-mail)  
Mr. Tommy Hodges, Energy Manager  
Alcoa Inc.  
3990 John D. Harper Rd.  
PO Box 1491  
Rockdale TX 76567-1491

(By first-class mail and e-mail)  
Mr. Roger Nevola, Attorney  
P.O. Box 2103  
Austin, TX 78701

(By e-mail and intra-agency mail)  
Mr. Denny Kingsley, Director  
Surface Mining and Reclamation Division  
Railroad Commission of Texas  
1701 N. Congress Ave.  
Austin, TX 78711-2967

Railroad Commission  
of Texas  
RECEIVED

FEB 01 2017

Surface Mining Division

Gentlemen:

Enclosed is Hearings Division Director Randall D. Collins' signed dismissal order for a portion of the above-referenced docket. The dismissal order dismisses the show cause portion of the above-referenced docket as moot.

Sincerely,

A handwritten signature in blue ink that reads "Marcy J. Spraggins".

Marcy J. Spraggins, Administrative Law Judge  
Hearings Division

A handwritten signature in blue ink that reads "Kyle L. Lebby".

Kyle L. Lebby, Administrative Law Judge  
Hearings Division

Attachment: Dismissal Order

c: Mr. Randall D. Collins, Director, Hearings Division  
Case File  
Legal File



**RAILROAD COMMISSION OF TEXAS**  
**HEARINGS DIVISION**  
**MEMORANDUM**

**TO:** Randall D. Collins, Director, Hearings Division

**FROM:** Marcy J. Spraggins, Administrative Law Judge *mps*

**SUBJECT:** Texas Westmoreland Coal Co. (TWCC);  
Show Cause Proceeding, Alcoa Inc. Bond Compliance  
Portion of Docket No. C17-0007-SC-01-E, Permit No. 1F, Sandow Mine  
Request for Dismissal

**DATE:** January 30, 2016

The Hearings Division issued a show cause notice of hearing relating to Alcoa Inc.'s bond filed in the name of Alcoa Corporation (a company related to Alcoa Inc.) After the filing of additional materials by Alcoa Inc. showing that the current bond remains in effect, the proceeding for show cause was deemed moot. Further materials will be filed relating to the bond and the structural change of Alcoa Inc.

I recommend that the docket be dismissed without prejudice due to the above pursuant to 16 TEX. ADMIN. CODE § 1.126 (4).

Attachment:

Dismissal Order

**RAILROAD COMMISSION OF TEXAS**

**HEARINGS DIVISION**

**SURFACE MINING AND RECLAMATION DIVISION, PORTION OF DOCKET NO. C17-0007-SC-01-E**

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**TO CONSIDER THE SHOW CAUSE PROCEEDING RELATED TO PERMIT NO. 1F PURSUANT TO CH. 12 NAT. RES. CODE AND CH. 2001 ADMINISTRATIVE PROCEDURE ACT, AND THE COMMISSION'S RULES OF PRACTICE AND PROCEDURE**

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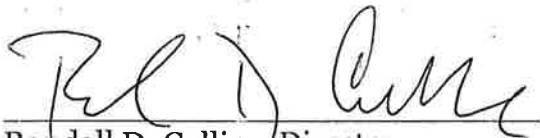
**ORDER OF DISMISSAL**

The captioned docket is hereby **DISMISSED WITHOUT PREJUDICE**.

This Order of Dismissal is issued under the authority of §1.126(4) of the General Rules of Practice and Procedure of the Railroad Commission of Texas due to the issue being moot.

It is further **ORDERED** by the Commission that this order shall not be final and effective until 25 days after the Commission's order is signed, unless the time for filing a motion for rehearing has been extended under TEX. GOV'T CODE §2001.142, by agreement under TEX. GOV'T CODE §2001.147, or by written Commission Order issued pursuant to TEX. GOV'T CODE §2001.146(e). If a timely motion for rehearing of an application is filed by any party at interest, this order shall not become final and effective until such motion is overruled, or if such motion is granted, this order shall be subject to further action by the Commission. Pursuant to TEX. GOV'T CODE §2001.146(e), the time allotted for Commission action on a motion for rehearing in this case prior to its being overruled by operation of law is hereby extended until 90 days from the date Commission Order is signed.

Signed January 30, 2017.

  
Randall D. Collins, Director  
Hearings Division



# RAILROAD COMMISSION OF TEXAS

## SURFACE MINING AND RECLAMATION DIVISION

January 30, 2017

### DOCKET SERVICES

Ms. Marcy Spraggins, Administrative Law Judge  
Hearings Division  
Railroad Commission of Texas  
1701 N. Congress Avenue  
P. O. Box 12967  
Austin, Texas 78711-2967

Re: Alcoa Inc. (Alcoa)  
Sandow Mine, Permit No. 1F  
Docket No. C17-0007-SC-01-E  
Revision No. 64  
Replacement Surety Bond Instrument

FILED  
2017 JAN 30 PM 1:18  
DOCKET SERVICES  
RAILROAD COMMISSION  
OF TEXAS

Dear Judge Spraggins:

Replacement surety bond instrument and supporting documents for the above-referenced permit submitted by letter dated October 28, 2016, were transmitted to the Hearing Division by letter dated November 2, 2016. Alcoa submitted supplemental information by letter dated November 15, 2016.

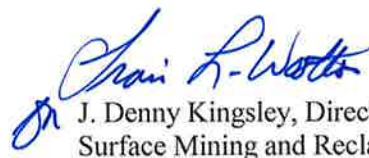
The attached legal review of the replacement surety bond instrument, supporting documentation, and supplemental information indicates Alcoa's replacement bond instrument meets requirements for approval and acceptance by the Commission upon approval of Revision No. 65. Review of Revision No. 65 is pending, Staff technical comments were provided to Alcoa by letter dated January 11, 2017. You will be provided with a copy of our recommendations regarding that application when our review is complete.

No changes have been made to the currently approved reclamation cost estimate (Revision No. 60) that was previously provided to you.

This letter has been transmitted in accordance with the attached Certificate of Service.

Should you have any questions, please call me or Martin Alvarez, technical review coordinator for this project.

Sincerely,

  
J. Denny Kingsley, Director  
Surface Mining and Reclamation Division

JDK/ARK/rv  
Attachments  
File Reference No. 1630501

**CERTIFICATE OF SERVICE**  
**Docket No. C17-0007-SC-01-E**

I, Travis L. Wootton, certify that on this date, January 30, 2017, a true and correct copy of the enclosed letter (without attachment) was sent via e-mail to the individuals listed below:

Mr. Tommy Hodges  
Energy Manager  
Alcoa, Inc.  
PO Box 1491  
Rockdale, Texas 76567  
Tommy.hodges@alcoa.com

Mr. Roger P. Nevola, Attorney  
4304 Bennedict Lane  
Austin, TX 78746  
roger@nevola.com



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Travis L. Wootton, Assistant Director  
Surface Mining and Reclamation Division  
Railroad Commission of Texas  
P.O. Box 12967  
Austin, Texas 7871



## RAILROAD COMMISSION OF TEXAS HEARINGS DIVISION

January 27, 2017

RE: Alcoa Inc., **Docket No. C17-0007-SC-01-E**;  
Application for Replacement Surety Bond Instrument Permit No. 1F,  
Sandow Mine (Revision No. 64), Application for Revision No. 65, and  
Show Cause proceeding

(By first-class mail and e-mail)  
Mr. Tommy Hodges, Energy Manager  
Alcoa Inc.  
3990 John D. Harper Rd.  
PO Box 1491  
Rockdale TX 76567-1491

Mr. Roger Nevola, Attorney  
P.O. Box 2103  
Austin, TX 78701

(By intra-agency mail and e-mail)  
~~Mr. J. Denny Kingsley, P.E., Director~~  
Surface Mining and Reclamation Division  
Railroad Commission of Texas  
P.O. Box 12967  
Austin, TX 78701

Railroad Commission  
of Texas  
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JAN 27 2017

Surface Mining Division

Dear Mr. Hodges, Mr. Nevola, and Mr. Kingsley:

As a result of Mr. Kingsley's letter dated January 11, 2017, and all other filings, please be advised that the Show Cause proceeding originally scheduled for December 6, 2016, later delayed by letter dated December 2, 2016, has been cancelled. Processing of the bond docket will continue when appropriate.

Because the Show Cause proceeding is hereby closed, and will be dismissed by the Hearings Division Director, no official or prehearing conference will be held. A copy of the dismissal order will be sent to you when it has been signed.

Sincerely,

Handwritten signature of Marcy J. Spraggins, followed by the text "by KLL".

Marcy J. Spraggins, Administrative Law Judge  
Hearings Division

Handwritten signature of Kyle L. Lebby.

Kyle L. Lebby, Administrative Law Judge  
Hearings Division

C: (By e-mail)  
Mr. Alex Schoch, General Counsel  
Mr. Randall Collins, Director, Hearings  
Mr. Travis Wootton, Assistant Director, SMRD  
Ms. Kathy Keils, Staff Attorney, Office of General Counsel  
Mr. Adam Goodlett, Staff Attorney, Office of General Counsel  
Case File  
Legal File



# RAILROAD COMMISSION OF TEXAS

## SURFACE MINING AND RECLAMATION DIVISION

March 22, 2016

**Sent by Email and First-Class Mail**

Mr. Tommy E. Hodges, P.E.

Engineering Manager

Alcoa Inc.

P. O. Box 1491

Rockdale, Texas 76567-1491

RE: Alcoa Inc. (Alcoa)  
Sandow Mine, Permit No. 1F  
2015 Audited Financial Information Review (Year Ending December 31, 2015)

Dear Mr. Hodges:

We have completed our review of Alcoa's 2015 audited annual financial information, submitted by letter dated February 22, 2016, in support of your self-bond. The Commission approved your self-bond in the amount of \$27,250,000, by Order dated April 8, 2015, pursuant to the provisions of §12.309(j).

Alcoa's audited financial information contained no adverse auditor's opinion. As noted in the attached legal and financial memoranda (dated March 9 and March 15, 2016, respectively) documenting our review of Alcoa's audited financial information, the requirements of §§12.309(j)(2)(C)(ii), 12.309(j)(2)(D) and 12.309(j)(4)(A) have been met.

Please be aware of the requirements of §12.309(j)(6) regarding the filing of updated financial information (audited statements) within 90 days after the close of each fiscal year (December 31) for Alcoa. If the updated financial information is not received by the Commission within 90 days after the end of the fiscal year, unaudited financial reports for all completed quarters must also be provided, as required by §12.309(j)(2)(D)(ii). Should you have any questions, please do not hesitate to give me a call.

Sincerely,

A handwritten signature in black ink that reads "John E. Caudle". The signature is fluid and cursive.

John E. Caudle, Director  
Surface Mining and Reclamation Division

JEC/MA/rv  
Attachments  
File Reference No. 1605303



CHRISTI CRADDICK, CHAIRMAN  
DAVID PORTER, COMMISSIONER  
RYAN SITTON, COMMISSIONER



RYAN D. LARSON, DIRECTOR

# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

April 9, 2015

(By first-class mail and e-mail)

Mr. Tommy E. Hodges  
Mining Manager  
Alcoa Inc.  
P.O. Box 1491  
Rockdale, TX 76567-1491

(Hand-delivered)

Mr. John E. Caudle, P.E., Director  
Surface Mining and Reclamation Division  
Railroad Commission of Texas  
P.O. Box 12967  
Austin, TX 78711-2967

**Re: SMRD Docket No. C14-0010-SC-01-E; Application for Acceptance of Replacement Reclamation Performance Bond, Self-Bond, Permit No. 1F, Sandow Mine, Milam and Lee Counties, Texas; FINAL ORDER**


To the Parties:

The Railroad Commission of Texas has acted upon the above-referenced case. Please refer to the attached Final Order for the terms and date of such action.

This order will not be final and effective until at least 23 days after the date of this letter. If a Motion for Rehearing is timely filed, this order will not be final and effective until such Motion is overruled. A Motion for Rehearing should state the reasons you believe a rehearing should be granted, including any errors that you believe exist in the Commission's order. If the Motion is granted, the order will be set aside and the case will be subject to further action by the Commission at that time or at a later date.

To be timely, a Motion for Rehearing must be received by the Commission's Docket Services (see letterhead address) no later than 5:00 p.m. on the 20th day after you are notified of the entry of this order. You will be presumed to have been notified of this order three days after the date of this letter. This deadline cannot be extended by the Examiners. Fax transmissions will not be accepted without prior approval from the hearings examiner. **ORIGINAL PLUS THIRTEEN** copies of the Motion for Rehearing shall be submitted to the hearings examiner. **PLEASE DO NOT STAPLE COPIES.** One copy must be sent to each party. In addition, if practicable, parties are requested to provide the examiners with a copy of the Motion for Rehearing in digital format. The digital format should be labeled with the docket number, the title of the document, and the format of the document.

Sincerely,

  
Randall Collins  
Hearings Examiner

Attachment

xc: CF  
LF

**RAILROAD COMMISSION OF TEXAS  
HEARINGS DIVISION**

**SURFACE MINING DOCKET NO. C14-0010-SC-01-E  
Application by Alcoa Inc. for Acceptance of Replacement  
Reclamation Performance Bond, Self-Bond, PERMIT NO. 1F  
SANDOW MINE, MILAM AND LEE COUNTIES, TEXAS**

**ORDER ACCEPTING REPLACEMENT RECLAMATION BOND**

**STATEMENT OF THE CASE**

The Railroad Commission of Texas issued Permit No. 1F to Alcoa Inc. (Alcoa), by Order dated August 19, 2009. The permit encompasses approximately 10,728.6 acres in Lee and Milam Counties, Texas of which 9,631.0 acres are currently covered under the reclamation bond following the approval administratively of Revision No. 40 by Staff on February 13, 2014. Alcoa requests that the Commission accept a replacement self-bond in the amount of \$27,250,000 to replace its currently accepted bond in the amount of \$27,250,000 accepted June 17, 2014. Although the Commission has approved various releases of reclamation obligations since acceptance of the current bond, collateral-bond with Letter of Credit, Alcoa has not adjusted its bond since its acceptance in 2014.

Based upon the documentation supporting the bond set out in Alcoa's application, Staff filings, including the Staff report of its reclamation cost estimate, and the Findings of Fact and Conclusions of Law set out in this order, the Commission determines that the proffered self-bond for reclamation performance meets requirements for reclamation performance bonding set out in §12.309(j)(2) of the Regulations for self-bonds and that the self-bond in the amount of \$27,250,000 may be accepted to replace the currently accepted collateral-bond with Letter of Credit in the amount of \$27,250,000.

**FINDINGS OF FACT**

1. Alcoa Inc. (Alcoa) is the permittee for the Sandow Mine, Permit No. 1F, in Lee and Milam Counties, Texas. Permit No. 1F is bonded with a self-bond accepted by the Commission Order dated July 17, 2014 in the amount of \$27,250,000.
2. Alcoa applied by letter dated November 15, 2013 for acceptance of a replacement bond for Permit No. 1F pursuant to §134.123 of the Texas Surface Mining Control and Reclamation Act, TEX. NAT. RES. CODE ANN. Ch. 134 (Vernon Supp. 2014) (Act) and the "Coal Mining Regulations," Tex. R.R. Comm'n, 16 TEX. ADMIN. CODE Ch. 12 (West 2014) (Regulations) in the amount of \$28,000,000. December 19, 2013, Staff filed the application with the Hearings Division and was informed by staff that a revised bond map and Alcoa's revised reclamation cost would be submitted and the Examiner would be informed after final action on Revision No. 40. information regarding Alcoa's estimate, the administrative section's financial review, and the review by legal staff of the

Office of General Counsel, Special Counsel section. The November 15, 2013 application submitted by Alcoa was based on audited 2013 annual financial information and staff subsequently found Alcoa was no longer qualified to self-bond. Alcoa subsequently submitted a \$27,250,000, collateral bond and letter of credit to replace the existing \$56,000,000 self-bond. The collateral bond and letter of credit were accepted by the Commission on June 17, 2014. By letter dated January 21, 2015, Alcoa due to the progression of mining and reclamation operations provided a \$27,250,000 replacement self-bond and unaudited 2014 financial information to replace the \$28,000,000 self-bond application and the 2013 financial information previously submitted. Alcoa submitted audited 2014 annual financial information by letter dated February 20, 2015. Staff submitted to the Hearings Division by letter dated March 9, 2015 the Office of General Counsel's legal review memorandum and Financial Services review memorandum, both dated March 6, 2015.

3. Alcoa has applied for Commission acceptance of a replacement self-bond in the amount of \$27,250,000 for current operations and reclamation within the permit area. The bond is submitted to provide bonding for reclamation if the work is performed by a third party at the direction of the Commission in the event of forfeiture. Replacement self-bonds are subject to the self-bond requirements of §12.309(j)(2) of the Regulations.
4. The reclamation self-bond submitted by Alcoa does not propose to reduce the currently accepted bond of \$27,250,000. By administrative action of the Director, Surface Mining and Reclamation Division, dated February 13, 2014, the Division approved a revision application, Revision No. 40, resulting in a reduction in the permit area boundaries within Permit No. 1F revised cost of reclamation \$27,091,226. Staff's revised reclamation cost estimate of \$27,091,226 was higher than Alcoa's reclamation cost estimate of \$26,256,023 and therefore staff's reclamation cost estimate was adopted. Since this date, the Commission approved an additional application for release of reclamation obligations (without adjustment to the bond instrument) ( Phase II and III release of 12.1 acres and Phase I, II, and III release of 389.2 acres for the Sandow Mine, Docket No. C14-0001-SC-01-F, approved by the Commission on January 27, 2015).
5. The instant application constitutes a bond adjustment for which notice is not required.
6. Alcoa has filed documentation showing the authority of the signatories on the bond to act for Alcoa in this matter in the form of a Corporate Secretary's Certificate certifying that the officers signing the bond hold corporate positions with Alcoa Inc. and are authorized to sign the bond on behalf of the corporation. The corporate secretary also provided an excerpt from the minutes of the corporate meeting in which a resolution was adopted providing authorization to all vice presidents of the corporation, among other officers, with the authority to execute bonds and other agreements. The officers for Alcoa Inc. authorized to sign and who did sign the proffered bond are Mr. John Kenna, Vice President, Tax, and Mr. Robert S. Collins, Vice President and Controller.

7. Alcoa has submitted a statement from its counsel that Alcoa's indemnity agreement will not violate applicable State or federal laws (Exhibit E).
8. The Commission regulation at 16 TEX. ADMIN. CODE §12.309(j)(2) provides that the Commission may accept a self-bond from the applicant when the applicant meets the self-bonding requirements for a business entity set out in 16 TEX. ADMIN. CODE §12.309(j)(2)(A), (B), (C) and (D). Alcoa has met the requirements of 16 TEX. ADMIN. CODE §12.309(j)(2)(A), (B), (C) and (D).
  - (a). Alcoa has designated a suitable agent for service of process in Texas, CT Corporation System (Exhibit H, bond package, Certificate from Secretary of State). [§12.309(j)(2)(A)].
  - (b). Alcoa has been in continuous operation for a period of not less than 5 years immediately preceding the date of application (since 1888) and has not been subject to bankruptcy proceedings during that time (Exhibit E, bond package). [§12.309(j)(2)(B)].
  - (c). By letter dated January 21, 2015 Alcoa submitted unaudited financial statements for the fiscal year ending December 31, 2014. By letter dated February 20, 2015 Alcoa submitted the audited financial statements for the financial year ending December 31, 2014. As required by the Regulations, for the period ending December 31, 2014, the auditors' statement contains no adverse opinion [§12.309(j)(2)(D)].

Alcoa has submitted financial information in sufficient detail to show that it meets one of the criteria for acceptance of self-bonding listed in §12.309(j)(2)(C). Meeting at least one of the criteria is a prerequisite for approval of self-bonding, in addition to meeting the requirement addressed in subsection (d) of this Finding of Fact (net worth requirement). Alcoa meets the requirement set out in §12.309(j)(2)(C)(ii): Staff legal review indicates that Alcoa's tangible net worth is at least \$10,000,000, a ratio of total liabilities to net worth of 2.5 or less, and a ratio of current assets to current liabilities of 1.2 or greater. (legal review Exhibit 1).
  - (d). The information contained in Alcoa's application and the Staff analysis show that Alcoa meets the financial criteria for self-bonding. Alcoa has provided information showing that it meets the required elements of §12.309(j)(2)(C)(ii). Qualification under §12.309(j)(2)(C)(ii) and along with meeting the limitation that the total amount of outstanding and proposed self-bonds does not exceed 25% of the applicant's tangible net worth in the United States [§12.309(j)(4)(A)]. Alcoa has provided information showing that it meets the 25% limitation.

- (i). Alcoa meets the requirements of §12.309(j)(2)(C)(ii) for tangible net worth, ratio of total liabilities to net worth, and ratio of current assets to current liabilities.
- (ii). Alcoa meets the requirement that its tangible net worth must be at least \$10,000,000; Alcoa's tangible net worth [as defined by §12.309(j)(1)(I), Regulations, net worth minus intangibles such as goodwill and rights to patents and royalties] is \$5,247,000,000 [Net worth, \$14,794,000,000, minus goodwill (\$5,247,000,000), minus intangibles (\$737,000,000), equals \$8,810,000,000]. Alcoa meets the requirement that it must have a ratio of total liabilities to net worth of 2.5 times or less; Alcoa's ratio is 1.53 [Total liabilities (\$22,605,000,000), to net worth (\$14,794,000,000) equals a ratio of 1.53.]. In addition, Alcoa must meet the criteria of current assets to current liabilities of 1.2 times or greater; Alcoa's ratio of current assets to current liabilities is 1.49 [Current assets (\$8,269,000,000) to current liabilities (\$5,541,000,000) equals a ratio of 1.49]. Alcoa's ratio of current assets to current liabilities meets the criteria of §12.309(j)(2)(C)(ii). (Application and Bond Package and Commission's Financial Services analysis dated March 6, 2015 and the Commission's Office of General Counsel's legal analyses also dated March 6, 2015).
- (iii). The Regulations at 16 TEX. ADMIN. CODE §12.309(j)(4)(B) provide that for the Commission to accept an applicant's self-bond pursuant to qualification by 16 TEX. ADMIN. CODE §12.309(j)(2)(A), (B), (C), and (D), the total amount of the applicant's present and proposed self-bonds and guaranteed self-bonds for surface coal mining and reclamation operations shall not exceed 25% of the applicant's tangible net worth in the United States (U.S.). The proposed increased self-bond amount with other Alcoa self-bonds in other states is approximately .95% of Alcoa's tangible net worth in the U.S. Alcoa provided no figures for its tangible net worth in the U.S. To arrive at this figure, Staff used Alcoa's figure for long-lived assets in the U.S., \$5,403,000,000 (Form K, Bond Package, Exhibit J, and Exhibit K) and compared it to Alcoa's total world-wide long-lived assets (\$16,426,000,000) to derive a percentage attributable to U.S. long-lived assets, 32.893%. This percentage was then applied to Alcoa's total net worth, \$8,810,000,000, to arrive at the net worth attributable to long-lived assets in the U.S. (tangible net worth in the U.S.), \$2,897,873,300. The total amount of self-bonds was then compared to Alcoa's tangible net worth in the U.S., to arrive at percentage to compare to the 25% limitation. By memorandum from the Financial Services Division dated March 6, 2015 and the Office of General Counsel by letter also dated March 6, 2015, financial staff concurred with Staff's analysis of tangible net worth in the U.S. Alcoa has no other self-bonds for coal mining reclamation other than the proffered self-bond. Dividing \$27,250,000 by \$2,897,873,300 (tangible net worth in the U.S.) provides

the percentage of tangible net worth in the U.S. made up of the proposed and outstanding self-bonds, .95%. The amount of proposed and outstanding bonds for surface mining reclamation does not exceed 25% of Alcoa's tangible net worth in the U.S.

(iv). In addition to the criteria set out in §12.309(j)(2)(c)(ii), Alcoa also meets the separate criteria for self-bonding as set out in §12.309(j)(2)(C)(iii):

(A). Alcoa's fixed assets in the U.S., defined in the Regulations as plant and equipment, but not land or coal in place [§12.309(j)(1)(C)], total at least \$20 million. Alcoa's fixed assets in the U.S., property, plant, and equipment, less land and coal in place, total \$5,403,000,000.

(B). Alcoa has a ratio of total liabilities (\$66,605,000,000) to net worth (\$14,794,000,000) of 2.5 times or less, that is, 1.53 [Finding of Fact No. 8(d)(2)].

(C). Alcoa's ratio of current assets (\$8,269,000,000) to current liabilities (\$5,541,000,000) is 1.49, meeting the requirement that it must be at least 1.2 times or greater [Finding of Fact No. 8(d)(2)].

(D). Alcoa meets the requirement that the total amount of its self-bond guarantees (\$27,250,000) must not exceed 25% of its tangible net worth in U.S. (\$2,897,873,300).. [Finding of Fact No. 8(d)(3)].

9. Based upon the application, bond, and other evidence submitted by Alcoa and Commission Staff, the Commission finds that the application meets the financial requirements for approval of a self-bond pursuant to the criteria set out in §12.309(j)(2)(C)(ii) and separate criteria set out in §12.309(j)(2)(C)(iii). A proposed order was circulated to Alcoa and Staff for comment. Neither party filed objections to the proposed order, and each filed waivers of the preparation and circulation of a proposal for decision.

10. The Commission also approves continued compliance with §12.311 for minimum liability insurance coverage by proof of self-bonding in accordance with §12.309(j)(2). An applicant that is self-bonded may be considered to meet self-insurance requirements (§12.311). Alcoa meets the requirements for self-bonding as set out in the Findings of Fact contained in this Order.

11. Alcoa has submitted the required audited financial statement for its fiscal year ending December 31, 2014. The statement was accompanied by an independent certified public accountant in conformity with generally accepted accounting principles and containing the accountant's audit or review opinion of the financial statement. The auditor's report contains no adverse opinion. Sufficient financial information has been submitted showing compliance with §12.309(j)(2)(D) of the Regulations requiring submittal of these

statements. No changes in the financial conditions of the applicant have occurred that would affect Alcoa's qualifications to self-bond.

12. Alcoa will immediately notify the Commission if financial conditions change so that the financial criteria are no longer met and will provide an alternate form of bond in the same amount as the self-bond as required by § 12.309(j)(7) of the Regulations.
13. The indemnity agreement contains the required undertaking by Alcoa to complete the reclamation plan for lands in default or to pay to the Commission an amount necessary to complete the approved reclamation plan, not to exceed the bond amount.
14. The designation of the agent for service of process, history of continuous operation, financial solvency, financial data on tangible net worth, ratio of total liabilities to net worth, and ratio of current assets to current liabilities; audited financial statement; recent unaudited financial data; and the percentage of the proposed bond amount compared to Alcoa's tangible net worth in the United States qualify Alcoa to be self-bonded in the amount of \$27,250,000.00.
15. The self bond in the amount of \$27,250,000.00 assumes the existing reclamation obligations and replaces the existing bond coverage of Permit No. 1F.
16. Acceptance of the proffered bond will allow the existing bond in the amount of \$27,250,000 to be replaced upon the acceptance of this bond. The release of this replaced bond is not a release of reclamation obligations.
17. No public notice has been provided or is required. The replacement bond procedure is not a release of reclamation obligations requiring public notice. All notice of consideration of the matter by the Commission has been made, and the parties have received notice of the proposed order and opportunity to file exceptions and replies. Comments regarding the order were filed; no exceptions were filed.
18. No revisions to the approved bond map are necessary at this time in that no additional operations are approved in this docket. Application of the new bond to areas other than those as shown on the approved bond maps will require acceptance of revised bond maps and an examination of the adequacy of the bond.
19. Alcoa Inc. is current in the payment of required franchise taxes through March 31, 2015 as required by TAX CODE §§171.001 *et seq.* (Vernon Supp. 2014) (Comptroller Certificates of Account Status).

**CONCLUSIONS OF LAW**

Based on all the Findings of Fact, the following Conclusions of Law are made:

1. The Commission has jurisdiction pursuant to §134.13 of the Act and §12.309(j)(2) of the Regulations to consider this application.
2. Alcoa has presented information to show that it complies with the financial criteria set out in §§12.309(j)(2)(C)(i) and 12.309(j)(2)(C)(ii) of the "Coal Mining Regulations" for approval of the self-bond. The Commission may accept the self-bond and is authorized to accept self-insurance based on self-bonding (§12.311 and Finding of Fact No. 9).
3. Acceptance of the proffered self-bond will allow the replacement of the currently accepted bond.
4. The application for bond replacement is not a release of reclamation obligations for which public notice is required, nor is public notice required pursuant to §12.226(a)(3), specifying public notice prior to a request to continue operation after the cancellation or material reduction of liability insurance or performance bond. Open meeting notice of consideration of this application has been provided (TEX. GOV'T CODE §551.048 (Vernon Supp. 2014)). All required notice has been made.

**IT IS THEREFORE ORDERED BY THE RAILROAD COMMISSION OF TEXAS** that the above Findings of Fact and Conclusions of Law are adopted;

**IT IS FURTHER ORDERED** that the self-bond provides required bonding for reclamation performance as approved by the Commission based on Alcoa's compliance with the financial criteria set out in §12.309(j)(2)(C)(ii); and

**IT IS FURTHER ORDERED** that the self-bond provides required bonding for reclamation performance as approved by the Commission based on Alcoa's compliance with separate financial criteria set out in §12.309(j)(2)(C)(iii); and

**IT IS FURTHER ORDERED** that Alcoa's self-bond of Alcoa in the amount of \$27,250,000 is accepted for Permit No. 1F and replaces the current collateral-bond with Letter of Credit in the amount of \$27,250,000; and

**IT IS FURTHER ORDERED** that revision to the operations or reclamation plan requires approval by the Director or Commission in accordance with the Act and Regulations; and

**IT IS FURTHER ORDERED** that the amount of bond required and the terms of each acceptance of bond shall be adjusted by the Commission from time to time as affected land acreages are increased or decreased or where the cost of reclamation changes; and



It is further **ORDERED** by the Commission that this order shall not be final and effective until 20 days after a party is notified of the Commission's order. A party is presumed to have been notified of the Commission's order three days after the date on which the notice is mailed. If a timely motion for rehearing is filed by any party of interest, this order shall not become final and effective until such motion is overruled, or if such motion is granted, this order shall be subject to further action by the Commission. Pursuant to TEX. GOV'T CODE §2001.146(e), the time allotted for Commission action on a motion for rehearing in this case prior to its being overruled by operation of law, is hereby extended until 90 days from the date the parties are notified of the order.

SIGNED IN AUSTIN, TEXAS, this 8th day of April, 2015.

RAILROAD COMMISSION OF TEXAS

Christi Craddick  
CHAIRMAN CHRISTI CRADDICK

David Porter  
COMMISSIONER DAVID PORTER

Ryan Sitton  
COMMISSIONER RYAN SITTON

ATTEST:

Kathy Way  
Secretary  
Railroad Commission of Texas

**RAILROAD COMMISSION OF TEXAS**  
Surface Mining and Reclamation Division  
Self Bond for Surface Mining and Reclamation Permit

Permit No.: 1F

Mine Name: ALCOA INC. SANDOW SURFACE MINE

Permittee: ALCOA INC.

(hereinafter referred to as the "Principal")

This instrument ☒ does ☐ does not (check appropriate response) replace an existing bond, described as:

**COLLATERAL BOND - LETTER OF CREDIT for \$27,250,000 for PERMIT NO. 1F - SANDOW SURFACE MINE - ACCEPTED APRIL 16, 2014 (Letter of Credit #143095-793)**

**KNOW ALL BY THESE PRESENTS** [Note: Recitals may be modified as necessary to address permit revisions, renewals, consolidations]:

**WHEREAS**, as the above bound Principal-Permittee submitted to the Railroad Commission of Texas, Surface Mining and Reclamation Division, an application for a permit to engage in surface mining, which application included a proposed reclamation plan; and

**WHEREAS**, said permit application (including the proposed reclamation plan) was approved on the 7 day of FEBRUARY, 2012; and

**WHEREAS**, the granting of a permit is conditioned in part on the Principal-Permittee's posting bond to insure the faithful performance of all requirements of the Principal-Permittee under the Texas Surface Coal Mining and Reclamation Act, Texas Natural Resources Code, § 134.001 et seq., (hereinafter referred to as the "Act"); regulations adopted under the Act, 16 TAC § 12.004 et seq., (hereinafter referred to as the "Coal Mining Regulations"); and the Permit as amended, renewed, revised, or replaced;

**THAT, ALCOA INC.**

as Principal-Permittee, is held and firmly bound unto the State of Texas in the full sum of **TWENTY-SEVEN MILLION TWO HUNDRED TWENTY FIVE THOUSAND** United States Dollars (\$ 27,250,000 U.S.), well and truly to be paid to the State of Texas in Austin, Travis County, Texas, and Principal-Permittee binds itself, its heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

**NOW, THEREFORE**, the conditions of this obligation are such that if the above bound Principal-Permittee shall faithfully and fully perform the requirements set forth in the Act, the Coal Mining Regulations, and the Permit as amended, renewed, revised, or replaced, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

And the Principal-Permittee, for value received, agrees that no amendment to existing laws, rules, or regulations, no adoption of new laws, rules, or regulations, and no amendment, renewal, revision, or replacement of the Permit (including the reclamation plan) shall in any way alleviate its obligation on this bond, and it does hereby waive notice of any such amendment, adoption, renewal, revision, or replacement.

The Principal-Permittee further agrees to give prompt notice to the Railroad Commission: (1) of any notice received or action filed alleging its insolvency or bankruptcy; or (2) if it becomes unable, or unwilling, to fulfill its obligation under this bond.

Self Bond of ALCOA INC. (Principal-Permittee)

It is agreed that this bond shall be in full force and effect for the duration of the reclamation obligation on the land affected by the Permit as amended, renewed, revised, or replaced or until the Principal-Permittee is otherwise relieved of its obligation by order of the Railroad Commission of Texas.

If this is a replacement bond, Principal Permittee further agrees that any liability which has accrued against it under the Act, the Coal Mining Regulation, or the Permit as originally issued, amended, revised, reviewed, or replaced, is transferred to this Bond.

It is further agreed that upon incapacity of the Principal-Permittee, or the Third-Party Guarantor if this bond is guaranteed, by reason of bankruptcy or incapacity, or for any other reason, Principal-Permittee shall be deemed to be without bond coverage in violation of the Act, the Coal Mining Regulations, and the Permit, and the Principal-Permittee shall discontinue surface coal mining operations until new performance MINE - ACCEPTED APRIL 16, 2014 (Letter of Credit #143095-793) construed as a waiver of the Commission's ability to enforce the Act, the Coal Mining Regulations, or the Permit, or to seek bond forfeiture in accordance with the provisions of the Act, the Coal Mining Regulations, or this instrument.

IN WITNESS WHEREOF, the Principal-Permittee has caused these presents to be duly signed and sealed this 14 Day of January, 2015.

ALCOA INC.

PRINCIPAL-PERMITTEE

201 ISABELLA STREET PITTSBURGH, PA 15212-5858

Address

By: [Signature]

Signature

JOHN KENNA

Typed Name

VICE PRESIDENT - TAX

Title

By: [Signature]

Signature

ROBERT S. COLLINS

Typed Name

VICE PRESIDENT AND CONTROLLER

Title

Attest [Signature]

JANET F. DUDERSTADT

Typed Name

GROUP COUNSEL, GLOBAL ROLLED PRODUCTS AND ASSISTANT SECRETARY

Title

Seal of Alcoa Inc.

Accepted:

4-8-15

Christi Claddick

CHAIRMAN, Railroad Commission of Texas

David P. R. R.

COMMISSIONER, Railroad Commission of Texas

R. R. R.

COMMISSIONER, Railroad Commission of Texas

Attest

Kathy Way

NOTE: The following documents should be submitted to the Commission along with the original self-bond: (1) original certified corporate resolution and certificate of incumbency, and (2) affidavit certifying that this instrument is valid under all applicable State and Federal laws.



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

December 6, 2016

RE: Alcoa Inc., **Docket No. C17-0007-SC-01-E**; Application for  
Replacement Surety Bond Instrument Permit No. 1F, Sandow  
Mine (Revision No. 64)  
and  
Application for Revision No. 65

**Railroad Commission  
of Texas  
RECEIVED**

**DEC 08 2016**

**Surface Mining Division**

(By first-class mail and e-mail)

Mr. Tommy Hodges  
Energy Manager  
Alcoa Inc.  
3990 John D. Harper Rd.  
PO Box 1491  
Rockdale TX 76567-1491

Mr. Roger Nevola, Attorney  
P.O. Box 2103  
Austin, TX 78701

Dear Mr. Hodges and Mr. Nevola:

ALJ Lebby and I have reviewed the emailed materials sent on December 5, 2016 addressing materials requested by our letter dated November 29, 2016. These materials were sent by Alcoa for review (copy of e-mail and attachments are enclosed with this letter for your convenience. Because ALJ Lebby and I have additional questions after review of these materials, and suggestions regarding the materials sent, we have determined to send this letter rather than address these matters by email only.

First, Alcoa included suggested text in the body of the email for a revised second paragraph of the affidavit affirming continuing liability on the self-bond. After review of this suggested text, we request that the text in the next to last sentence be revised from "does not remain liable" to "would not remain liable..." In addition, because we do not believe that sufficient indications exist in the materials filed that Arconic Inc. holds 19.9% of "the stock" of Alcoa Corporation, we request that the final sentence of the affidavit affirming continuing liability on the self-bond be omitted on this affidavit as well as on the schematic. The materials indicate that persons own common and preferred stock of the company Alcoa USA Corp. The ownership and control materials filed in Revision No. 65 do not appear to be complete. The materials do not address all officers and directors of affiliated companies that own or control 10% or more of the entity Alcoa USA Corp. or the type of ownership and company or persons who are owners. (See the final two paragraphs on this page.)

The affidavit for accuracy of the schematic should also include Mr. Heeter or another corporate officer signing in his corporate capacity as well as general counsel. A revised submission of the affidavit affirming continuing liability should also indicate corporate capacity of the signatories. We do hereby again request copies of the schedules and Ancillary Agreements. As indicated, materials can be redacted if necessary.


The schematic appears to indicate that Alcoa USA Corp. is a subsidiary of Alcoa Upstream Corporation (Alcoa Corporation). FORM 10-12B/A (Amendment No. 5 to FORM 10) for Alcoa Upstream Corporation (a Delaware corporation) (Alcoa Corporation) in its Exhibit 21.1 contains a complete list of legal entities that comprise Alcoa Corporation; however, our review indicates that although Exhibit 21.1 includes Alcoa USA Corp. as a subsidiary of the registrant Alcoa Upstream Corporation (Alcoa Corporation), Alcoa USA Corp. is also listed as organized in New York. Tab B of Revision No. 65 indicates that the corporation is organized in Delaware. In addition, Form S-1 (Exhibit E of Revision No. 65) indicates that Alcoa Upstream Corporation is organized in Delaware; however, Exhibit 21.1 of Amendment No. 5 to FORM 10 lists as a subsidiary of Alcoa Upstream Corporation an additional Alcoa Upstream Corporation organized in Pennsylvania.

Clarification regarding these matters must be provided. In addition, with regard to the schematic, the exact connection (wholly-owned subsidiary or other percentage of ownership) should be provided for Alcoa Corporation, Alcoa USA Holding Company, and Alcoa USA Corp. and the officers and directors of each (that have not already been provided). This information should be filed by affidavit by an officer of Alcoa Corporation. Because this information is also required by §12.116(b)(3)(D) and 116(b)(4) of the Regulations, and must be certified, it may be submitted as a part of the corporate structure application rather than presented on the schematic.

Sincerely,



Marcy J. Spraggins, Administrative Law Judge  
Hearings Division



Kyle Lebby, Administrative Law Judge  
Hearings Division

C: (By e-mail)

Mr. Denny Kingsley, Director, Surface Mining and Reclamation Division (SMRD)

Mr. Alex Schoch, General Counsel

Mr. Randall Collins, Director, Hearings

Mr. Travis Wootton, Assistant Director, SMRD

Ms. Kathy Keils, Staff Attorney

Mr. Adam Goodlett, Staff Attorney

Case File

Legal File



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

December 2, 2016

RE: Alcoa Inc., **Docket No. C17-0007-SC-01-E**; Application for Replacement Surety Bond Instrument Permit No. 1F, Sandow Mine (**Revision No. 64**), Application for Revision No. 65, and Show Cause proceeding

(By first-class mail and e-mail)  
Mr. Tommy Hodges, Energy Manager  
Alcoa Inc.  
3990 John D. Harper Rd.  
PO Box 1491  
Rockdale TX 76567-1491

Mr. Roger Nevola, Attorney  
P.O. Box 2103  
Austin, TX 78701

(By intra-agency mail and e-mail)  
Mr. J. Denny Kingsley, P.E., Director  
Surface Mining and Reclamation Division  
Railroad Commission of Texas  
P.O. Box 12967  
Austin, TX 78701

**Railroad Commission  
of Texas  
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**DEC 06 2016**

**Surface Mining Division**

Dear Mr. Hodges, Mr. Nevola, and Mr. Kingsley:

Please be advised that the Show Cause proceeding scheduled for December 6, 2016 has been delayed. It has not yet been rescheduled. A letter providing notice of the resumption or other action related to the hearing will be sent to you soon.

Sincerely,

Handwritten signature of Marcy J. Spraggins in blue ink.

Marcy J. Spraggins, Administrative Law Judge  
Hearings Division

Handwritten signature of Kyle L. Lebby in blue ink.

Kyle L. Lebby, Administrative Law Judge  
Hearings Division

C: (By e-mail)  
Mr. Alex Schoch, General Counsel  
Mr. Randall Collins, Director, Hearings  
Mr. Travis Wootton, Assistant Director, SMRD  
Ms. Kathy Keils, Staff Attorney, Office of General Counsel  
Mr. Adam Goodlett, Staff Attorney, Office of General Counsel  
Case File  
Legal File



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

November 21, 2016

RE: Alcoa Inc., **Docket No. C17-0007-SC-01-E**; Application for  
Replacement Surety Bond Instrument Permit No. 1F, Sandow  
Mine (**Revision No. 64**)  
and  
Application for Revision No. 65

(By first-class mail and e-mail)

Mr. Tommy Hodges  
Energy Manager  
Alcoa Inc.  
3990 John D. Harper Rd.  
PO Box 1491  
Rockdale TX 76567-1491

**Railroad Commission  
of Texas  
RECEIVED**

**NOV 21 2016**

**Surface Mining Division**

Mr. Roger Nevola, Attorney  
P.O. Box 2103  
Austin, TX 78701

(By intra-agency mail and e-mail)

Mr. J. Denny Kingsley, P.E., Director  
Surface Mining and Reclamation Division  
Railroad Commission of Texas  
P.O. Box 12967  
Austin, TX 78701

Dear Mr. Hodges and Mr. Kingsley:

Please find attached the Order Setting Show Cause Hearing and Prehearing Conference in the Matter of Alcoa Inc. Revision Nos. 64 and 65.

Sincerely,

*Marcy J. Spraggins*  
Marcy J. Spraggins, Administrative Law Judge  
Hearings Division

C: (By e-mail)  
Mr. Randall Collins, Director, Hearings  
Mr. Travis Wootton, Assistant Director, SMRD  
Mr. Kyle Lebby, Administrative Law Judge  
Case File  
Legal File





# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

### ORDER SETTING SHOW CAUSE HEARING AND PREHEARING CONFERENCE IN THE MATTER OF ALCOA INC. REVISION NOS. 64 AND 65

On December 6, 2016, at 9:00 a.m. the Hearings Division of the Railroad Commission of Texas will hold a Show Cause hearing in the matter of Alcoa Inc., Docket No. C17-0007-SC-01-E (Application for Revision No. 64) and Application for Revision No. 65, Change in Corporate Structure and Name Change. The hearing will be held in Room 12-126, Twelfth Floor, William B. Travis Building, 1701 N. Congress Avenue, Austin, TX. All matters relevant to these applications may be discussed.

The Surface Mining and Reclamation Division filed its transmittal on November 2, 2016 to the Hearings Division of the Railroad Commission of Texas of the application by Alcoa Inc. for Revision No. 64, for its surface coal mining and reclamation Permit No. 1F for the Sandow Mine for acceptance of a replacement bond instrument. The currently accepted bond for this permits is a self-bond by Alcoa Inc. The application requests acceptance of a bond termed a surety bond by Alcoa USA Corp. to replace the current self-bond by Alcoa Inc. On November 14, 2016 Alcoa Inc. submitted its letter dated November 10, 2016 with attached Revision No. 65 with the Hearings Division. Revision No. 65 is styled Change in Corporate Structure and Name Change from Alcoa Inc. to Alcoa USA Corp. Based upon documents contained in these applications, the Hearings Division of the Railroad Commission of Texas issues this Notice of Show Cause Hearing to Alcoa Inc. to provide sufficient information to show cause that bonding remains currently in place for Permit No. 1F and why Permit No. 1F should not be revoked for failure to maintain required bonding for the permit as required by TEX. NAT. RES. CODE CH. 134.125, the "Coal Mining Regulations," 16 TEX. ADMIN. CODE §§12.300-310 and §1.47 of the Commission's "Practice and Procedure" rules, 16 TEX. ADMIN. CODE CH. 1.

A prehearing conference will be held in this proceeding on November 30, 2016 at 10:00 a.m. in Room 12-126, Twelfth Floor, William B. Travis Building, 1701 N. Congress Avenue, Austin, TX. All related matters may be considered.

**Auxiliary Aids or Services for Persons with a Disability** - Any individual with a disability who needs auxiliary aids and services in order to have an equal opportunity to effectively communicate and participate in the hearing must request such aids or services at least two weeks prior to the hearing by notifying the Human Resources Department of the Commission by mail at

P. O. Box 12967, Austin, Texas 78711-2967 or by telephone at (512) 463-6981 or TDD No. (800) 735-2989.

ORDERED this 21st day of November, 2016.

A handwritten signature in black ink, appearing to read "Randall D. Collins", written over a horizontal line.

Randall D. Collins, Director, Hearings Division  
Railroad Commission of Texas

Sandow Mine Permit 1F Reclamation Obligation Bonding Change  
Revision Number 64 - Supplement Number 1  
Attn: Denny Kingsley  
November 15, 2016  
Page 2 of 2

Your assistance in this matter is greatly appreciated and if you desire any additional information or have questions, please feel free to contact me.

I, Tommy E. Hodges, P.E. have been granted Special Power of Attorney to prepare and submit this Sandow Permit 1F Surety Bond Instrument Supplement Number 1 submittal.

Respectfully,

A handwritten signature in blue ink that reads "Tommy E. Hodges" with a checkmark at the end.

Tommy E. Hodges, P.E.  
Energy Manager  
Attorney in Fact  
Alcoa USA Corp.  
Rockdale Operations

Enclosures

cc:

Marcy J. Spraggins, Administrative Law Judge

(by email only)

Roger Nevola – Counsel

John Holsinger – Alcoa Counsel



# RAILROAD COMMISSION OF TEXAS

## SURFACE MINING AND RECLAMATION DIVISION

November 2, 2016

### DOCKET SERVICES

Mr. Randall D. Collins, Director  
Hearings Division  
Railroad Commission of Texas  
1701 N. Congress Avenue  
P. O. Box 12967  
Austin, Texas 78711-2967

Re: Alcoa Inc. (Alcoa)  
Sandow Mine, Permit No. 1F  
Revision No. 64  
Replacement Surety Bond Instrument

FILED  
2016 NOV -2 PM 2:33  
DOCKET SERVICES  
RAILROAD COMMISSION  
OF TEXAS

Dear Mr. Collins:

Alcoa submitted the attached replacement surety bond instrument from Federal Insurance Company by letter dated October 28, 2016. The replacement surety bond instrument in the amount of \$14,000,000 will replace the current \$27,250,000 self-bond (approved by Order dated April 8, 2015).

The replacement surety bond instrument in the amount of \$14,000,000 exceeds the latest reclamation cost estimate of \$13,481,862 that was approved administratively by letter dated July 18, 2016, in Revision No. 60. The proposed surety bond instrument is sufficient to cover the cost of reclamation if accepted by the Commission. Copies of the approval letter and Staff technical review memorandum (including reclamation cost analysis) for Revision No. 60 are included in Tab A of Alcoa's submittal.

A copy of this application is being concurrently transferred to the Office of General Counsel-Special Counsel Section for review. Staff's legal review of the replacement surety bond instrument and supporting documentation will be forwarded to the Hearings Division upon receipt.

Please assign an Administrative Law Judge for review of this information and presentation of the bond documents at the first available Commission conference once the legal review is complete. Should you have any questions, please call me, or Martin Alvarez, technical review coordinator for this project.

Sincerely,

A handwritten signature in blue ink, consisting of a stylized 'J' and 'K' followed by a horizontal line.

J. Denny Kingsley, Director  
Surface Mining and Reclamation Division

JDK/MA/rv  
Attachment  
File Reference No. 1630501



# RAILROAD COMMISSION OF TEXAS

## SURFACE MINING AND RECLAMATION DIVISION

July 18, 2016

**Sent by Email and First-Class Mail**

Mr. Tommy Hodges  
Energy Manager  
Alcoa, Inc.  
P. O. Box 1491  
Rockdale, Texas 76567-1491

RE: Sandow Mine, Permit No. 1F  
Permit Area Reduction and Bond Map Revision  
Revision No. 60

Dear Mr. Hodges:

Review of your request, submitted by letter dated May 23, 2016, and supplemented by letter dated June 6, 2016, for approval of a reduction in the permit area and corresponding bond-map changes, is complete. A \$500 revision-application filing fee was included with the submittal.

Alcoa requests to remove 2,650.6 acres from the permit area, resulting in a reduction from 10,730.3 acres to 8,079.7 acres. Approximately 1,872.0 acres of the 2,650.6 acres requested to be removed from the permit area have received Phase III release of reclamation liability. The remaining 778.6 acres are undisturbed areas.

The proposed revised bonded area consists of 559.0 acres bonded at the mined rate, 461.0 acres bonded at the disturbed rate, 1,317.0 acres with Phase I & II release (disturbed rate) and 5,728.0 acres with Phase I & II release (mined rate). These areas are shown on Dwg. Nos. 145-B1, *North Area Proposed Bond Map*, and 145-B2, *South Area Proposed Bond Map*, submitted by letter dated June 6, 2016. From Staff's reclamation cost estimate, an amount of \$13,481,862 is necessary for reclamation of the mine in the event of forfeiture and is recommended for adoption as the minimum required reclamation bond amount. Alcoa's \$27,250,000 self-bond approved by Order dated April 8, 2015, is sufficient to cover the cost of reclamation.

The information contained in this application was revised as a revision to Permit No. 1F. I find that these changes do not constitute a significant departure from the approved reclamation plan in accordance with §12.226. Revision No. 60, which contains permit area reduction and corresponding updated bond maps described above, is approved and the permit is revised accordingly.

A copy of the Staff review memorandum is attached. If you have any questions, please do not hesitate to call me or Dr. Xiaoyan Dai, review coordinator for this revision application.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Denny Kingsley", with a long horizontal line extending to the right.

J. Denny Kingsley, Director  
Surface Mining and Reclamation Division

JDK/XD/rv  
Attachments  
File Reference No. 1614413



# RAILROAD COMMISSION OF TEXAS

## SURFACE MINING AND RECLAMATION DIVISION

### MEMORANDUM

TO: J. Denny Kingsley, Director *[Signature]*

THRU: Travis L. Wootton, Manager, Applications and Permits  
Timothy G. Walter, P.G., Advising Hydrogeologist *TGW*  
Adam Krabbenhoft, Engineering Specialist *ARK*

FROM: Xiaoyan Dai, Ph.D., Natural Resources Specialist  
Israr Anwar, P.E., Engineer

SUBJECT: Alcoa Inc. (Alcoa)  
Sandow Mine, Permit No. 1F  
Permit Area Reduction and Bond Map Revision  
Revision No. 60

DATE: July 18, 2016

Alcoa submitted Revision No. 60 by letter dated May 25, 2016, which includes proposed permit boundary revision and permit boundary change maps for Permit No. 1F. Alcoa requests a reduction of the approved permit boundary to remove all areas released from Phase III release of reclamation obligations and areas that were not disturbed by mining. A comment letter was sent on May 31, 2016. Alcoa's response to the comment letter was submitted by letter dated June 6, 2016. Additional information was submitted by email on June 23, 2016, and June 26, 2016. A \$500 revision-application filing fee was included with each submittal. Below is a summary of the application and my technical review:

### PROPOSAL SUMMARY

1. To identify the areas where the permit-area reduction is proposed, Alcoa provides maps depicting the proposed boundary of the permit area (*Revision 60 - Proposed Permit Boundary Revision*). The proposed changes are delineated on maps contained in the June 6, 2016, supplement, titled *Revision 60 - Proposed Permit Boundary Changes*. The updated bond maps, as supplemented, titled, *North Area Proposed Bond Map*, and *South Area Proposed Bond Map*, are also contained in the supplement dated June 6, 2016.
2. Alcoa requests to remove 2,650.6 acres from the approved 10,730.3-acre permit area, resulting in a revised total permit area of 8,079.7 acres. The 2,650.6 acres are comprised of Phase III land released from reclamation liability (1,872.0 acres) and undisturbed area that is either currently bonded or unbonded (778.6 acres). The acreage of each proposed removal area is depicted on maps *Revision 60 - Proposed Permit Boundary Changes* Dwg. Nos. 1, 2 and 3 (June 6, 2016, supplement). The revised bond maps (June 6, 2016, supplement) reflect Phase I, II and III release areas approved as of the date of submittal of the application as well as the permit reduction areas.

3. The revised bond maps, along with a table provided by email dated June 23, 2016, show a total of 559.0 acres bonded at the mined rate and 461.0 acres bonded at the disturbed rate. These revised bond maps also depict a total of 1,317.0 acres of land with Phase I and II release at the disturbed rate and 5,728.0 acres of land with Phase I and II release at the mined rate. These areas are shown on Dwg. Nos. 145-B1 and 145-B2. Alcoa does not request a reduction of the approved self-bond instrument in the amount of \$27,250,000.

### **PROPOSAL EVALUATION**

1. The proposal to remove 2,650.6 acres from the permit area and revise the bond maps is a revision to the approved permit. The acreage to be removed from the permit area includes undisturbed areas and areas that have received Phase III release of reclamation liability.
2. The area proposed for removal from the permit area is shown on the maps provided in Revision No. 60. The Commission's Inspection and Enforcement Staff inspected the areas proposed for removal on June 20 and 21, 2016. The inspector, Jacob Eickstead, confirmed that the proposed removal areas were accurate. Based on the maps provided by Alcoa, the acreage to be removed from the permit area includes 778.6 acres of undisturbed areas and 1,872.0 acres that have received Phase III release of reclamation liability, with a total of 2,650 acres. The undisturbed area (778.6 acres) proposed to be removed is currently not bonded (approved in Revision No. 58), and the phase III release area (1,872.0 acres) proposed to be removed is comprised of 872.0 acres that is currently bonded at the mined rate and 1,000.0 acres that is currently not bonded (approved in Revision No. 58).
3. The updated bond maps provided in this revision application indicate that within the proposed permit area, there are 559.0 acres bonded at the mined rate, 461.0 acres bonded at the disturbed rate, 1,317.0 acres bonded as Phase I and II release at the disturbed rate, and 5,728.0 acres bonded as Phase I and II release at the mined rate, with a total bonded acreage of 8,065.0 acres. The proposed permit area is 8,080.0 acres. The 15.4-acre difference between the permit area and the bonded area is unbonded as explained by email dated June 26, 2016, from Bill Hartley of HF & Associates, Inc., a consultant for Alcoa.
4. The following table summarizes bond releases accounted for on the revised bond maps:

#### **7,916.7-Acre Bond Release Order Dated April 13, 2016**

Mined to Phase II	36.0	acres
Mined Phase I to Phase II	5,692.0	acres
Mined Phase II to Phase III	861.0	acres
Disturbed to Phase II	49.0	acres
Disturbed Phase I to Phase II	1,268.0	acres
Disturbed Phase II to Phase III	11.0	acres

5. The release areas shown on Drawing Nos. 145-B1 and 145-B2 (June 6, 2016) are accurate and correspond with Commission Orders through April 13, 2016.
6. Staff's reclamation cost analysis included in Revision No. 58 (approved administratively by letter dated May 18, 2016) is revised to reflect updated equipment costs. The unit reclamation costs were obtained from the attached revised Staff reclamation cost analysis. A summary of the estimated reclamation costs for Revision No. 60 is provided as follows:

**SUMMARY OF ESTIMATED RECLAMATION COSTS**

Disturbance Category <sup>1/</sup>	Cost per Acre	Acres <sup>2/</sup>	Estimated Cost
Mined Rate	\$5,154	559.0	\$2,881,086
Mined Phase I (60%) Reduction	\$2,062	0.0	\$0
Mined Phase II Reduction	\$1,080	5,728.0	\$6,186,240
Disturbed Rate	\$3,832	461.0	\$1,766,552
Disturbed Phase I (60%) Reduction	\$1,533	0.0	\$0
Disturbed Phase II Reduction	\$1,080	1,317.0	\$1,422,360
SUBTOTAL			\$12,256,238
ADMINISTRATIVE COST (10%)			\$1,225,624
<b>TOTAL RECOMMENDED RECLAMATION BOND</b>			<b>\$13,481,862</b>

<sup>1</sup> Mined Areas: Includes any area where spoil is deposited, the active pit, and any highwall reduction areas.

Disturbed Areas: Includes reclamation activities (such as clearing and grubbing, topsoil removal, etc.) associated with construction of sediment ponds, diversions, access roads, haul roads, and facilities where the area is not mined.

Ancillary Areas: Includes disturbance areas on which soil preparation and seeding are the only required reclamation activity.

<sup>2</sup> All acreage figures were taken from the revised bond maps, Drawing No. 145-B1, *North Area Proposed Bond Map*, and Drawing No. 145-B2, *South Area Proposed Bond Map*, dated June 3, 2016 (June 6, 2016, supplement).


7. Staff's previous reclamation cost estimate of \$22,845,452, was included in Revision No. 58. The decreased reclamation cost estimate reflected in this memorandum is primarily due to credit for recently approved release of reclamation liability areas and to update equipment costs.
8. Alcoa has provided the information necessary for compliance with §§12.226, 12.142(2)(C), 12.145(b)(2), 12.304, and 12.307.



CONCLUSIONS AND RECOMMENDATIONS

The permit-area reduction and corresponding changes to the approved bond maps are not contemplated in the approved permit and are considered a revision to Permit No. 1F. Staff's reclamation cost estimate shows that \$13,481,862 is necessary to complete reclamation of the mine in the event of forfeiture and is recommended for adoption as the minimum required reclamation bond amount. Alcoa's \$27,250,000 self-bond approved by Order dated April 8, 2015, is sufficient to cover the cost of reclamation. The revision to the approved permit does not appear to constitute a significant departure from the method of conduct of mining or reclamation operations contemplated in Permit No. 1F in accordance with §12.226. Alcoa has provided the information necessary to demonstrate compliance with §§12.226, 12.142(2)(C), 12.145(b)(2), 12.304, and 12.307. Based on my technical review, we recommend approval of the permit-area reduction and revised bond maps, Dwg. No. 145-B1, *North Area Proposed Bond Map*, and Dwg No. 145-B2, *South Area Proposed Bond Map*, dated June 3, 2016.

  
Xiaoyan Dai, PhD.

  
Israr Anwar, P.E.

XD/rv  
File Reference No. 1614413  
Attachment



**RAILROAD COMMISSION OF TEXAS**

DAVID PORTER, Chairman  
CHRISTI CRADDICK, Commissioner  
RYAN SITTON, Commissioner

**SURFACE MINING AND RECLAMATION DIVISION**

J. DENNY KINGSLEY  
Director

**ALCOA INC.  
SANDOW MINE, PERMIT NO. 1F  
REVISION NO. 60  
STAFF RECLAMATION COST ANALYSIS**

July 18, 2016

## STAFF RECLAMATION COST ANALYSIS

### ALCOA INC. SANDOW MINE

This report is prepared to provide the basis by which the Railroad Commission will determine a performance bond amount in accordance with §§12.304 and 12.307 for the Sandow Mine. Section 12.301 of the "Surface Coal Mining Regulations" (Regulations) requires the filing of a performance bond with the Commission after an application for a permit to conduct surface coal mining and reclamation operations has been approved, but before such a permit is issued. Section 12.304 requires that the bond amount shall be the estimated cost to the Commission if it had to perform the reclamation and abatement work under the Regulations and any permit(s) issued by the Commission. Section 12.307(c) of the Regulations allows the revision of the amount of performance bonds when the cost of future reclamation work changes.

The equipment costs used in this estimate are from the "Cost Reference Guide for Construction Equipment," an annual publication produced by Dataquest, Inc. Costs are updated annually. Equipment selection and productivity were calculated using the "Caterpillar Performance Handbook." Equipment productivities are based on the information contained in Edition 40 and 42, as indicated footnotes on Appendices A through E. Equipment costs used in the Staff's reclamation cost estimate are listed in Table VI of the report.

Mining at the Sandow Mine has ceased and only reclamation activities are in progress. The reclamation costs for the Sandow Mine have been classified into the following five work categories: Overburden spoil leveling, disturbed area leveling, soil preparation, revegetation and maintenance. The cost associated with each of these five categories is summarized in Table II. Mining-related operations have been segregated into three general disturbance categories:

- (1) **Mined Acreage:** Includes any area where spoil is deposited, the active pit and any highwall reduction areas.
- (2) **Disturbed Acreage:** Includes activities (such as clearing and grubbing, topsoil removal, etc.) associated with construction of sedimentation ponds, diversions, access roads, haul roads and facilities where the area is not mined.
- (3) **Ancillary Acreage:** Includes disturbance areas on which soil preparation and seeding are the only required reclamation activities.

The reclamation costs for the disturbance categories are determined by the selection and summation of costs in each appropriate work activity required for reclamation of the mining disturbance. The summation of work activities to determine the cost to reclaim for various disturbance categories is provided in Tables III, IV and V. Mathematical rounding to one decimal place was made after each step of computation.

### Overburden Spoil Leveling

The mine plan calls for the use of draglines as the primary overburden removal equipment. Based on the information presented in the permit, the average crest-to-crest distance of spoil banks was 120 feet with an angle of repose of 36 degrees. The theoretical quantity of spoil material to be moved per acre in the leveling operation can be computed using the following equation:

$$V_m = 100.83 B (\tan A), \text{ where:}$$

$V_m$  = total volume of spoil moved per surface acre,

$B$  = crest-to-crest distance of spoil banks, and

$A$  = angle of repose of spoil bank

Substituting the above-information into the equation, the quantity of spoil to be moved on a per-acre basis is about 8,791 loose cubic yards (lcy). The quantity of the spoil per acre to be moved is multiplied by 1.33 to account for a 33% rehandle of the spoil by the bulldozers; therefore, the volume of spoil is estimated to be 11,692 loose cubic yards.

Equipment typically used to level overburden spoil piles and disturbed areas are as follows:

- |                        |          |
|------------------------|----------|
| 1. Bulldozer (U-Blade) | Cat D9T  |
| 2. Scraper             | Cat 631G |
| 3. Motor Grader        | Cat 14M  |

Through the use of information obtained from the *Caterpillar Performance Handbook* it was determined that a D-9T dozer can move and level 557 loose cubic yards of spoil per hour (Appendix A) for 250 feet of push distance. Assuming this leveling rate, the number of dozer hours required to level one acre of overburden spoil is approximately:

$$\text{D-9T Dozer Hours} = \frac{11,692 \text{ lcy/ac}}{557 \text{ lcy/hr}} = 21 \text{ hrs/ac}$$

A motor grader will be required to final grade the leveled overburden. The motor grader will make two passes over the leveled spoil at a production rate of 0.3 hours per acre (Appendix D). A motor grader with a ripper bar (ripping to a depth of 1.3 feet) will be utilized to pre-condition the overburden prior to soil preparation and revegetation. It will be necessary for the motor grader with ripper to make one pass over the leveled and graded spoil with a production rate of 0.6 hours per acre (Appendix E). The number of hours required for grading and ripping will be approximately:

14M Motor Grader Hours	=	0.3 hr/ac	X	2 passes	=	0.6 hrs
14M Motor Grader w/ Ripper Hours	=	0.6 hr/ac	X	1 pass	=	0.6 hrs

### Disturbed Area Leveling

All land disturbed in support of mining operations will require reclamation. These disturbed areas include sedimentation ponds, diversions, and roads. Based on Staff computations and information provided in the reclamation cost estimate in the approved permit, it is estimated that approximately 2,000 bank cubic yards of material per acre will be required to reclaim these areas. This amount of material has been compacted; therefore, the amount of compacted material considered for productivity calculations has been multiplied by a factor of 1.2 to provide the approximate volume as measured in loose cubic yards (2,000 bcy x 1.2 = 2,400 lcy).

Scraper productivity is calculated at 280 lcy per hour (Appendix B) for 1,000-foot haul distance. After spoil placement with scrapers, a dozer will be required for leveling. The calculated productivity of a D-9T dozer for leveling is approximately 0.5 hours per acre (Appendix C). A dozer will also be required to assist in loading the scrapers at the rate of 1 dozer hour for each 3 scraper hours. An 8,000 gallon water tanker will be used to suppress dust generated by the scrapers at the rate of 1 tanker hour for each 6 scraper hours.

631G Scraper Hours	=		$\frac{2,400 \text{ lcy/ac}}{280 \text{ lcy/hr}}$	=	8.6 hr/ac
D-9T Dozer Hours	=	0.5 hrs/ac	+	$\frac{8.6}{3}$	= 3.4 hr/ac
8,000 Gallon Water Truck Hours	=		$\frac{8.6}{6}$	=	1.4 hr/ac

A motor grader will make two passes at a production rate of 0.3 hours per acre (Appendix D). A motor grader with a ripper bar (ripping to a depth of 1.3 feet) will be utilized to pre-condition the disturbed areas prior to soil preparation and revegetation. It will be necessary for the motor grader to make one pass over the disturbed areas with a production rate of 0.6 hours per acre (Appendix E). The number of hours required for grading and ripping will be approximately:

14M Motor Grader Hours	=	0.3 hr/ac	X	2 passes	=	0.6 hr/ac
14M Motor Grader w/ Ripper Hours	=	0.6 hr/ac	X	1 pass	=	0.6 hr/ac

### Soil Preparation and Revegetation Costs

The machinery used for revegetation for the purposes of this report will be conventional agricultural equipment. The equipment and associated operating cost (machine and operation), which will be used to compute reclamation costs, are listed in Table VI.

The permit contains a list of species for revegetation. The postmining land uses contained in pending Revision No. 52 and their percent areal distributions are pastureland (66.2%), fish and wildlife (3.9%), and developed water resources (5.6%) and industrial/commercial (24.3%). About 12.5% of the grassed areas are assumed to be planted in woody species. The vegetation, fertilization, and lime costs used in this analysis are located in Table VI.

The fertilizer and lime rates that will be used in the absence of soil test are as follows:

1. Initial application to all areas	288 lbs/ac of 18-18-18;
2. Application to sprigged areas after establishment	130 lbs/ac of 46-0-0; and
3. Annual applications to sprigged areas	288 lbs/ac of 18-18-18
4. One-time application to areas planted w/woody species during the maintenance period.	79 lbs/ac of 18-18-18
5. Lime, one-time application to all areas	5 tons/ac

For purposes of estimating revegetation costs, it will be assumed that the entire acreage will receive the same soil preparation prior to sprigging or seeding. Species will be machine and/or hand planted. A one-time lime application of 5 tons/acre will be added during the initial soil preparation.

The temporary cover crop (e.g., wheat) will be planted on approximately 50% of the area to be revegetated to prevent excessive erosion prior to establishing a permanent cover. Bluestem grass (var. Gordo) will be planted in 10% of the grass area for wildlife habitat. Bluestem grass seed will be planted with the planting of wheat. Another annual cover crop (e.g., brown top millet) will be planted to prevent excessive erosion during the spring and summer months in areas to be planted to trees. Clover will be broadcast in pastureland areas after the second mowing in the fall. Areas with temporary revegetation will be planted to permanent vegetation at the next available opportunity according to the season. Since weather conditions at certain times of the year are not conducive to planting and establishment of a temporary cover crop, it is further assumed that 50% of the revegetated area will receive a hay mulch treatment at a rate of two tons per acre, anchored with a mulch crimper.

It is estimated that as much as 20% of the acreage may need to be replanted. The initial planting plus this additional 20% planting is represented in the attached table by the planting factor of 1.2. The additional planting will be done the second year after initial revegetation. Chemical weed control will be practiced on three occasions over the entire revegetated area during the five-year period. Areas planted to trees will be fertilized once during the maintenance period. Areas planted to coastal bermudagrass will be fertilized and mowed twice in the year of establishment and once yearly during the remaining four-year period.

The permittee is required to maintain the revegetated areas for a total of five years after the vegetative cover performance standards have been achieved. Soil tests (20-acre grids) will be conducted to determine fertilization needs and AFM/TFM in compliance with the Regulations. This information will be provided to the Commission prior to accepting lands into the extended responsibility period. Additionally, the results of the soil analyses (20-acre grids) to determine fertility needs for the last three years of the ERP will also be provided to the Commission.

**TABLE II  
SUMMARY OF RECLAMATION COSTS**

<b>WORK CATEGORY</b>	<b>EQUIPMENT</b>	<b>UNITS</b>	<b>COST/UNIT</b>	<b>COST PER ACRE (\$/ac)</b>
<b>OVERBURDEN SPOIL LEVELING</b>				
	D-9T with U-Blade	21.0 hrs/ac	\$188 /hr	\$3,948
	14M Motor Grader	0.6 hrs/ac	\$102 /hr	\$61
	14M Motor Grader w/ Ripper	0.6 hrs/ac	\$109 /hr	\$65
			<b>SUBTOTAL</b>	<b>\$4,074</b>
<b>DISTURBED AREA LEVELING</b>				
	631G Scraper	8.6 hrs/ac	\$207 /hr	\$1,780
	D-9T	3.4 hrs/ac	\$188 /hr	\$639
	8,000 gal. Water Truck	1.4 hrs/ac	\$148 /hr	\$207
	14M Motor Grader	0.6 hrs/ac	\$102 /hr	\$61
	14M Motor Grader w/Ripper	0.6 hrs/ac	\$109 /hr	\$65
			<b>SUBTOTAL</b>	<b>\$2,752</b>
<b>SOIL PREPARATION</b>				
	Postmine Revegetated Areas Percentage	94.4%		
	Initial Fertilizer Application to all Areas (18-18-18)	288 lb/ac		
	Fertilizer Cost		\$0.31 /lb	\$84
	Number of Fertilizer Applications	1		
	Fertilizer Application Cost		\$4 /ac/appl	\$4
	One-Time Lime Application	5 tons/ac		
	Lime Cost		\$23 /ton	\$109
	Offset Disk to Incorporate Lime	0.5 hrs/ac		
	Offset Disk Cost		\$60 /hr	\$28
	Tandem Disk for Final Seedbed Preparation	0.5 hrs/ac		
	Tandem Disk Cost		\$60 /hr	\$28
			<b>SUBTOTAL</b>	<b>\$253</b>
<b>REVEGETATION</b>				
<b>Temporary Cover Crop in all Areas</b>				
	Percentage of Revegetated Area Planted to Temporarily Cover Crop (Wheat and Bluestem)	47.2%		
	Cover Crop Cost		\$14	\$7
	Tractor w/ Grain Drill for Cover Crop Cost		\$18	\$8
	Tractor w/ Grain Drill for Cover Crop	0.5 hrs/ac		

	Tandem Disk Cost		\$60	\$14
	Percentage of Area Mulched	47.2%		
	Mulch and Tack Cost		\$200 /ac	\$94
<b>Permanent Crop (bermuda grass)</b>				
	Percentage of Postmine Area Sprigged	90.5%		
	Planting Factor	1.2		
	Coastal Bermuda Crop Cost		\$24 /ac	\$26
	Tractor w/ Sprigger Cost		\$36 /ac	\$39
	Fertilizer Applied After Establishment to Sprigged/Grassed areas (46-0-0)	130 lb/ac		
	Fertilizer Cost		\$0.28	\$33
	Number of Fertilizer Application	1		
	Fertilizer Application Cost		\$4 /ac/appl	\$4
	Number of Mowings	2		
	Mowing Cost		\$18 /lb	\$33
	Clover Seed Cost		\$9 /ac	\$8
	Broadcast Application of Clover Seed		\$4 /ac	\$4
<b>Permanent Crop (Trees &amp; Shrubs)</b>				
	Percentage of Postmine Area to Trees and Shrubs	12.5%		
	Planting Factor	1.2		
	Cost of Grass Crop (Brown top millet)		\$26 /ac	\$4
	Cost of Tractor w/ Grain Drill for Grass Crop		\$18 /ac	\$2
	Trees and Shrubs Cost		\$85 /ac	\$13
Initial Soil Testing	Percentage of Postmine Area to be Tested	94.4%		
	Test Cost (\$/20 ac grid)		\$267 /20 ac grid	\$13
			<b>SUBTOTAL</b>	<b>\$302</b>
<b>MAINTENANCE 2nd thru 5th years</b>				
<b>All Areas</b>				
	Postmine Revegetated Area Percentage	94.4%		
	10% Soil Testing (\$/ac)		\$1.25 /ac	\$1
	Soil Testing (\$/ac)		\$2.7 /ac	\$3
	Number of Weed Control Applications	3		
	Chemical Weed Control Cost		\$10 /ac	\$28
<b>Permanent Crop (bermuda grass)</b>				
	Percentage of Postmine Area Sprigged	90.5%		
	Annual Fertilizer Application (288 lb of 18-18-18)	288 lbs/ac		
	Number of Years of Maintenance	4		
	Fertilizer Cost		\$0.31 /lb	\$323
	Number of Fertilizer Applications	4		



Fertilizer Application Cost		\$4 /ac/appl	\$14
Number of Mowings	4		
Mowing Cost		\$18 /ac	\$65
Amount of grass to be baled	4 tons/ac		
Baling Cost		\$24 /ac	\$87
Percentage of Postmine Area to Trees and Shrubs	12.5%		
Annual Fertilizer Application to Wooded Areas	79 lbs/ac		
Fertilizer Cost		\$0.31 /lb	\$3
Number of Fertilizer Applications	1		
Fertilizer Application Cost		\$4 /ac/appl	\$1
		<b>SUBTOTAL</b>	<b>\$525</b>

**TABLE III  
MINED RATE DISTURBANCE  
ESTIMATED RECLAMATION COSTS**

<b>WORK CATEGORY</b>	<b>COST PER ACRE (\$/ac)</b>
Overburden Spoil Leveling	\$4,074
Soil Preparation	\$253
Revegetation	\$302
Maintenance	\$525
<b>TOTAL</b>	<b>\$5,154</b>

**TABLE IV  
DISTURBED RATE DISTURBANCE  
ESTIMATED RECLAMATION COSTS**

<b>WORK CATEGORY</b>	<b>COST PER ACRE (\$/ac)</b>
Disturbed Area Leveling	\$2,752
Soil Preparation	\$253
Revegetation	\$302
Maintenance	\$525
<b>TOTAL</b>	<b>\$3,832</b>

**TABLE V  
ANCILLARY RATE DISTURBANCE  
ESTIMATED RECLAMATION COSTS**

<b>WORK CATEGORY</b>	<b>COST PER ACRE (\$/ac)</b>
Soil Preparation	\$253
Revegetation	\$302
Maintenance	\$525
<b>TOTAL</b>	<b>\$1,080</b>

**TABLE VI  
EQUIPMENT AND MATERIALS COSTS**

<b>Equipment or Material</b>	<b>Cost</b>		
Catepillar D-9T Dozer	\$188 / hr		
Catepillar 631G Scaper	\$207 / hr		
Catepillar 14M Grader	\$102 / hr		
Catepillar 14H Grader with ripper	\$109 / hr		
8,000 Gallon Water Truck	\$148 / hr		
Agricultural Tactor w/ Offset Disk (0.5 hrs/ac)	\$60 / hr		
Agricultural Tactor w/ Tandem Disk (0.5 hrs/ac)	\$60 / hr		
Agricultural Tactor w/ Sprigger	\$36 / ac		
Agricultural Tactor w/ Grain Drill	\$18 / ac		
Mulching and Tacking	\$200 / ac		
Baling	\$24 / ton		
Mowing	\$18 / ac		
Broadcast Application of Clover Seed	\$4 / ac		
Chemical Weed Control	\$10 / ac		
Initial Soil Test	\$267 / 20	ac grid	
Soil Test - Last Three Years of Liability Period	\$54 / 20	ac grid	
Soil Test - Fourth year of liability period - 10% of area	\$25 / 20	ac grid	
Planting Trees and Shrubs (including labor)	\$85 / ac		
Coastal Bermuda Grass sprigs	\$24 / ac		
Mixture of Native Grasses	\$65 / ac		
Clover Seed Cost	\$9 / ac		
Temporary Cover Crop (cool season - wheat)	\$14 / ac		
Temporary Cover Crop (warm season - millet)	\$26 / ac		
Fertilizer (18-18-18)	\$620 / ton =	\$0.31 / lb	
Fertilizer (46-0-0)	\$554 / ton =	\$0.28	
Fertilizer Application Costs	\$4 / ac		
Agricultural Lime (applied)	\$23 / ton		
Sorghum Seed Cost	\$13 / ac		
Harvesting Cost	\$40 / ac		

**APPENDICES  
SANDOW MINE  
REVISION NO. 60  
STAFF RECLAMATION COST ANALYSIS  
EQUIPMENT PRODUCTIVITIES**

**APPENDIX A  
SANDOW MINE  
STAFF RECLAMATION COST ANALYSIS**

**PRODUCTIVITY FOR DOZER USE**

Activity Rough leveling of spoil material  
 Characterization of Equipment Used: Caterpillar D9T (w/U blade)  
 Description of Dozer Route: -10% grade

Productivity Calculations

Operator Factor 0.8  
 Material Factor 1.1  
 Job Efficiency Factor 0.83 (50 min/hr)  
 Grade Factor 1.2  
 Weather Factor 1.1  
 Slot Dozing Factor 1.2  
 Productivity Adj. Factor =  $(\text{Oper. Factor} \times \text{Mat. Factor} \times \text{Job Eff. Factor} \times \text{Gr. Factor} \times \text{Slot Doz Factor}) / \text{Weather Factor}$   
 Productivity Adj. Factor = 0.96  
 Adjusted Dozer Productivity = Productivity Adj. Factor x Optimum Dozer Productivity

Ave. Push Distance (ft)	Optimum Dozer Productivity (lcy/hr)	Adjusted Dozer Productivity (lcy/hr)
250	580	557

**APPENDIX B**  
**STAFF RECLAMATION COST ANALYSIS**  
**PRODUCTIVITY FOR SCRAPER USE**

Characterization of Equipment Used: Caterpillar 631G Scraper

Scraper Capacity	29 lcy (average)
Average Grade	0%
Rolling Resistance	10%
Total Resistance	10%
Job Efficiency Factor	0.83 (50 min/hr)
Weather Factor	1.1
Operator Factor	0.8
Load Time	0.6 min
Maneuver and Dump Time	0.7 min
Adjusted Hourly Productivity = $\frac{\text{Scraper Capacity} \times \text{Job Effic. Factor} \times \text{Oper. Factor} \times 60 \text{ min/hr}}{(\text{Total cycle Time} \times \text{Weather Factor})}$	

Haul Distance (ft)	Loaded Trip Time	Return Trip Time	Total Cycle Time	Adjusted Scraper Productivity (lcy/hr)
1,000	1.50	0.95	3.75	280

Characterization of Push Dozer: Caterpillar D-9T w/U Blade

**Assume one dozer hour for each 3 scraper hours**

Characterization of Water Truck: 8,000 Gallon Capacity Off-Highway Water Truck

**Assume one water truck hour for each 6 scraper hours**

**APPENDIX C**  
**SANDOW MINE**  
**STAFF RECLAMATION COST ANALYSIS**

**PRODUCTIVITY FOR DOZER USE**

Activity	Reclamation of ponds, roads, and diversions		
Characterization of Dozer	Caterpillar D-9T w/U blade		
Forward Speed	2.4	mph	
Reverse Speed	5.2	mph	
Blade Width	15	feet	
Description of Route	one pass over area		
Productivity Factor:			
Operator Efficiency	0.8		
Work Hour (50 min/hr)	0.83	hr	
10% Bad Weather Allowance	1.1		
Productivity Calculations:			
Hourly Production (forward)	43560/(Blade Width x 5280x Forward Speed)		
	0.2		hr/ac
Hourly Production (reverse)	43560/(Blade Width x 5280x Reverse Speed)		
	0.1		
Total Hourly Production	0.3		hr/ac
Adjusted Hourly Production	Total Hourly Production x Weather Allowance / (Work Hour x Op. Eff.)		
	0.5		hr/ac

**APPENDIX D  
SANDOW MINE  
STAFF RECLAMATION COST ANALYSIS**

**PRODUCTIVITY FOR GRADER**

Activity Final Grading Mined and Disturbed Areas  
 Characterization of Equipment Used: Caterpillar 14M Grader

Productivity Calculations

Effective blade width	12	ft
Forward speed	3.3	mph
Operator Factor	80%	
Job Efficiency Factor	0.83	(50 min/hr)
Weather Factor	1.1	

Adj. Grader Prod. = (Weather Factor x sf/ac)/(Job Eff. Factor x Op. Factor x Blade Width x Feet/mile x Speed)

Weather Factor	Sq. Ft. per acre	Job Efficiency Factor	Operator Factor	Blade Width (ft)	Feet per Mile	Average Speed (mph)	Adjusted Dozer Productivity (hr/ac)
1.1	43,560	0.83	80%	12	5,280	3.3	0.3



**APPENDIX E  
SANDOW MINE  
STAFF RECLAMATION COST ANALYSIS**

**PRODUCTIVITY FOR GRADER WITH RIPPER**

Activity: Pre-condition Overburden for Soil Preparation and Vegetation  
 Characterization of Equipment Used: Caterpillar 14M Grader w/ripper

Productivity Calculations

Ripping Depth	1.3	ft
Width per pass	8.5	ft
Average Speed	2.7	mph
Operator Factor	80%	
Job Efficiency Factor	0.83	(50 min/hr)
Weather Factor	1.1	

Assume 1 pass over all areas prior to topsoiling or soil preparation.

Adj. Grader Prod. = (Weather Factor x sf/ac)/(Job Eff. Factor x Op. Factor x Blade Width x Feet/mile x Speed)

Weather Factor	Sq. Ft. per acre	Job Efficiency Factor	Operator Factor	Blade Width (ft)	Feet per Mile	Average Speed (mph)	Adjusted Dozer Productivity (hr/ac)
1.1	43,560	0.83	80%	8.5	5,280	2.7	0.6

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01/86  
Surface Mining Division Page 1 of 6

**RAILROAD COMMISSION OF TEXAS  
SURFACE MINING AND RECLAMATION DIVISION**

**Application for Coal Mining Operations Permit**

All items should be as complete as possible. Please submit your application on standard size paper. File seven (7) complete copies with the Director of the Surface Mining and Reclamation Division. See "Rules of the Surface Mining and Reclamation Division" and "Texas Surface Coal Mining and Reclamation Act" for information.

**I. General Information**

A. Name

1. Name of applicant: Alcoa USA Corp ("Alcoa")  
Name of mining operation: Sandow Mine  
Permanent mailing address: P.O. Box 1491  

Street or P.O. Box

<u>Rockdale</u>	<u>TX</u>	<u>76567</u>
<small>City</small>	<small>State</small>	<small>Zip Code</small>

  
Telephone: 512-446-8419

2. Name, address, and telephone number of person or persons authorized to act for applicant during consideration of this application (attorneys, engineering firms, applicant's mining superintendent, etc.)

Tommy Hodges - Energy Manager; P.O. Box 1491; Rockdale, TX 76567; 512-446-8419

Terrill Tomecek - Chief Engineer; P.O. Box 1491; Rockdale, TX 76567; 512-446-8567

Karolyn Puccio - Business Support Supervisor; P.O. Box 1491; Rockdale, TX 76567; 512-446-8681

Roger Nevola - Attorney at Law; P.O. Box 2103; Austin, TX 78768; 512-499-0500

David Jackson - Attorney at Law; 711 West 7th Street; Austin, TX 78701; 512-225-5560

3. Name, address, and telephone number of ownership, and management officers of the permit applicant and affiliated persons engaged in surface mining.

See revised Section 12.116 Permit 1F attached and attached Tables .116-1 and .116-2.

- B. Type of permit application: ☐ Regular ☐ Original ☒ Revision ☐ Renewal
- C. Product to be mined: ☐ Coal ☒ Lignite
- D. Type of mining operation ☐ Open-pit mining ☒ Strip mining ☐ Underground mining

E: Location

1. County or counties

Milam and Lee

2. This mine site is located in Milam, Lee and Williamson Counties, Texas approximately seven (7) miles

southwest of Rockdale, Texas in the southwestern most section of Milam County and northeastern corner of Lee County.

## II. Administrative Information

A. Interested persons (Rule 116). Give name and address of:

1. Every owner of record of property to be mined.
2. Leaseholders of record.
3. Real estate contract holders of record.
4. Owners of record of all surface and subsurface areas contiguous to application area.
5. Operator, if different from owner, for application area.
6. Resident agent and telephone number.

B. Applicant's Organization (Rule 116). Provide:

1. A statement of organization: single proprietorship, corporation, etc.
2. If other than single proprietorship:
  - (a) Name and address of any person functioning like a director of the applicant.
  - (b) Name and address of any principal shareholder.
  - (c) Names under which the applicant operated surface coal mines in the U.S. in the previous five years.
  - (d) Name and address of their principal officers and resident agent.
3. A list of current or previous coal mining permits held in U.S. since 1970 by applicant and by principal shareholders and authority issuing the permit.
4. If it exists, the Mining Safety and Health Administration identification number.
5. A statement of lands contiguous to application area in which the applicant is interested.

C. Compliance History (Rule 116). Provide:

1. A statement of:
  - (a) Suspended or revoked permits in the last five years for applicant or person controlled by or with applicant.
  - (b) Any forfeited bond on security.
2. For any of the above include:
  - (a) Identification of the permit issued, date and amount of bond.
  - (b) Identification of authority taking action.
  - (c) Current status of situation causing suspension or revocation.
  - (d) Date, location and type of any administrative or judicial proceeding.
  - (e) Status of proceeding.
3. A list of violations for the past three years for applicant or persons controlled by or with applicant. Include violations of mining and environmental statutes, rules, regulations -- state or federal.

Details should include:

- (a) Date and identification or authority.
- (b) Description of violation.
- (c) Descriptions of administration of judicial proceedings.
- (d) Status of proceedings.
- (e) Abatement action taken by applicant.

D. Right to Mine (Rule 117 and 118).

1. Provide descriptions and/or copies of all documents conveying rights (surface and subsurface) to enter and mine including consent of surface owners or authority under state law to extract coal at the site.
2. Designate on a map areas designated as unsuitable for mining.
3. Provide statement regarding Lands Unsuitable as designated procedurally under Subchapter F or under study or exemptions under Rule 216.
4. Provide waivers from dwelling owners within 300 feet of the mining area.

E. Permit tenure and sequences Rule 119). Provide

1. Size, sequence and timing for each phase of mining and number of acres affected for the life of the permit. (Attach map)
2. If application is for greater time than five years, additional information relating to financing and operations for the longer period.

F. Certificate of liability or self-insurance (Rule 120).

G. Other licenses and permits required (Rule 121). Include:

1. Issuing authority
2. Status
3. Identification number if issued.

H. Locations where application may be reviewed by the public (Rule 122).

I. Copies of published notice and proof of publication when available. (Rule 123).

**III. Environmental Resources Information - Premining** (PART 779 and Rule 107).

Provide:

A. Archeological survey. (Rule 125)

B. Analysis of geological and hydrological resources. (See Rules 126-130) Where applicable, the applicant may request that the Surface Mining and Reclamation Division provide environmental resource information, to the extent that it is available from an appropriate Federal or State agency. The request shall be in writing.

C. Climatological information. (Rule 131)

D. Vegetative cover. (Rule 132)

E. Fish and wildlife resources. (Rule 133)

F. Soils resources. (Rule 134)

G. Land use information. (Rule 135)

- H. Maps, plans and cross-sections. (Rules 136 and 137)
- I. Prime farmland investigation. (Rule 138)
- IV. **Mining Plan** (See Rule 107 for format and general requirements, subchapter K and Rules 139 through 144). Provide narrative including:
  - A. Mining procedures.
  - B. Engineering techniques.
  - C. Equipment to be used.
  - D. Production rates.
  - E. Operation plan including design and handling of the following new facilities:
    - 1. Dams, embankments, and impoundments
    - 2. Storage areas (noncoal)
    - 3. Coal handling
    - 4. Waste handling and disposal
    - 5. Mine
    - 6. Air pollution control (Rule 143, if applicable)
  - F. Existing facilities use, modification, destruction and environmental plan. (Rule 140)
  - G. Blasting plan. (Rule 141)
  - H. Fish and wildlife plan. (Rule 144)
- V. **Reclamation Plan** (See Rule 107 for format and general requirements and Rules 145 through 154).
  - A. Demonstrate compliance with environmental standards. Include:
    - 1. Timetable for each step in reclamation plan.
    - 2. Detailed cost of reclamation.
    - 3. Plans and maps for soil handling and final disposition.
    - 4. Revegetation plan.
    - 5. Plan for maximization and conservation of coal resource.
    - 6. Plan for handling and disposal of waste, toxic and fire hazard material, contingency plan to preclude sustained combustion.
    - 7. Maps, cross-sections, and narrative for sealing or managing wells and openings.
  - B. Demonstrate compliance with air and water quality laws and regulations, and health and safety standards.

C. Reclamation Plan should emphasize:

1. Protection of the hydrologic balance.
2. Post mining land use.
3. Design, operation and final disposition of ponds, impoundments, banks, dams and embankments.
4. Surface mining near underground mining.
5. Maps and cross-sections of stream and channel diversions.
6. Protection of public and historic facilities.
7. Spoil disposal.
8. Design, handling and final disposition of transportation facilities.

I, Tommy E. Hodges, Energy Manager, state that I have knowledge of the facts herein set forth and that the same are true and correct to the best of my knowledge and belief. I further state that to the best of my knowledge and belief, the project for which applicaiton is made will not in any way violate any law, rule ordinance, or decree of any duly authorized governmental entity having jurisdiction.

Date: 2016 Oct 28

Signature: \_\_\_\_\_

Tommy E Hodges

Tommy E. Hodges, P.E.

Attorney-in-Fact

## APPENDIX A

## Water Analysis References:

- American Public Health Association, American Water Works Association and Water Pollution Control Federation, Standard Methods for the Examination of Water and Wastewater, 14th Edition: New York, American Public Health Association, 1975.
- American Society for Testing and Materials, "Water and Atmospheric Analysis", Annual Book of ASTM Standards, Part 23, Philadelphia, American Society Testing Material, 1975.
- Brown, Eugene, M. W. Skougstad, and M. J. Fishman, Methods for Collection and Analysis of Water Samples for Dissolved Minerals and Gases: Techniques of Water Resources Investigations of the U.S. Geological Survey, Book 5 Chapter A-1, Washington, D.C., Superintendent of Documents, U.S. Printing Office, 1970.
- Environmental Protection Agency, Methods for Chemical Analysis of Water and Wastes, Environmental Monitoring and Support Laboratory, Office of Research and Development, Cincinnati, Ohio, (EPA-600/4-79-020), 1979.

## Soil Analysis References:

- Black, C.A., (editor), "Part I: Physical and Mineralogical Properties", "Part II: Chemical and Microbiological Properties", Methods of Soil Analysis, American Society of Agronomy and American Society for Testing and Materials, Agronomy Series Number 9.
- Brown, K.W. and L. E. Deuel, "Final Report: The Suitability of Overburden as a Medium for Plant Growth and Growth and Characteristics of existing Soils at the Proposed Mine Area in Grimes County", Texas A&M Research Foundation and Texas Agricultural Experiment Station, Department of Soil & Crop Sciences, College Station, Texas February 1977.
- Sobek, A.A., et al, "Field and Laboratory Methods Applicable to Overburdens and Minesoils", USEPA (600/2-78/054-NTIS PB 280 495), Industrial Environmental Research Laboratory, Cincinnati, Ohio, 1978
- USDA, "Diagnosis and Improvement of Saline and Alkali Soils", Agricultural Handbook No. 60, U.S. Government Printing Office, Washington, D.C., 1969.
- USDA - Soil Conservation Service, "Soil Survey Laboratory Methods and Procedures for Collecting Soil Samples", U.S. Government Printing Office, Washington, D.C. 20402, (0107-0298), 1972.

**RAILROAD COMMISSION OF TEXAS**

**Surface Mining and Reclamation Division**

**Surety Bond for Surface Mining and Reclamation Permit**

Permit No.: **RCT SMRD Permit Number 1F**

Mine Name: **Alcoa Sandow Mine**

Permittee: **Alcoa USA Corp**

(hereinafter referred to as the "Principal")

Bond No.: **82380333**

This bond ☒ does ☐ does not (check appropriate response) replace an existing bond, described as:  
**Alcoa Inc. Sandow Mine RCT Permit 1F \$27,250,000 Self Bond**

**KNOW ALL BY THESE PRESENTS** [Note: Recitals may be modified as necessary to address permits revisions, renewals, consolidations]:

**WHEREAS**, the above bound Principal submitted to the Railroad Commission of Texas, Surface Mining and Reclamation Division, an application for a permit to engage in surface mining, which application included a proposed reclamation plan; and

**WHEREAS**, the Principal's permit application (including the proposed reclamation plan) was approved by the Railroad Commission of Texas on the **1st** day of **November, 2016**; and

**WHEREAS**, issuance of a permit pursuant to such approved application (the "Permit") and retention of the Permit are conditioned on the Principal's posting bond to insure faithful performance of all requirements of the Principal under the Texas Surface Coal Mining and Reclamation Act, Texas Natural Resources Code, § 134.001 *et seq.*, (hereinafter referred to as the "Act"); regulations adopted under the Act, 16 TAC § 12.1 *et seq.*; (hereinafter referred to as the "Coal Mining Regulations"); and the Permit;

**THAT WE**, **Alcoa Usa Corp** as Principal, and **Federal Insurance Company**, as Surety, are held and firmly bound to the State of Texas in the full sum of **Fourteen Million** United States Dollars (\$**14,000,000.00** U.S.), well and truly to be paid to the State of Texas in Austin, Travis County, Texas, and we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents.

**NOW, THEREFORE**, the conditions of this obligation are such that if the above bound Principal shall faithfully and fully perform the requirements set forth in the Act, the Coal Mining Regulations, and the Permit, as now or hereafter amended, revised, renewed or replaced, then this obligation shall be null and void; otherwise it shall remain in full force and effect.



Bond No.: **82380333**

And the Surety to this bond, for value received, agrees that no amendment to existing law, rules or regulations, no adoption of new laws, rules, or regulations, and no amendment, revision, renewal, or replacement of the Permit (including the reclamation plan) shall in any way alleviate its obligation on this bond, and it does hereby waive notice of any such amendment, adoption, revision, renewal, or replacement.

The Surety further agrees to give prompt notice to the Principal and to the Railroad Commission: (1) of any notice received or action filed alleging the insolvency or bankruptcy of the Surety or which could result in suspension or revocation of the Surety's license to do business in the State of Texas; or (2) if it becomes unable, or, for any reason, unwilling, to fulfill its obligations under this bond.

If this is a replacement bond, Surety further agrees that any liability which has accrued against the Principal under the Act, the Coal Mining Regulations, or the Permit as originally issued, amended, revised, renewed, or replaced, is transferred to this bond.

The Surety further represents to the Railroad Commission that it is a corporate surety licensed to do business as a surety in Texas.

It is agreed that this bond shall be in full force and effect, and non-cancellable, for the duration of the reclamation obligation on the land affected by the Permit, as amended, renewed, revised, or replaced, or land substituted therefore, or until the Principal is otherwise relieved of its obligation hereunder by order of the Railroad Commission of Texas.

It is further agreed that upon the incapacity of the Surety by reason of bankruptcy, insolvency or suspension or revocation of its license, or for any other reason, the Principal shall be deemed to be without bond coverage in violation of the Act, the Coal Mining Regulations, and the Permit, and the Principal shall discontinue surface coal mining operations until new performance bond coverage is approved. Notwithstanding the foregoing, however, nothing in this instrument shall be construed as a waiver of the Commission's ability to enforce the Act, the Coal Mining Regulations, or the Permit, or to seek bond forfeiture in accordance with the provisions of the Act, the Coal Mining Regulations, or this instrument.

Bond No.: 82380333

IN WITNESS WHEREOF, the Principal and Surety have caused these presents to be duly signed and sealed this 12th Day of October, 2016.

**Alcoa Usa Corp**

Principal

**201 Isabella Street, Pittsburgh, PA 15212**

Address

By: ✓

Signature

**John Kenna**

Typed Name

**Attorney-in-Fact**

Title

Attest: ✓

Accepted: \_\_\_\_\_

**Federal Insurance Company**

Surety

**15 Mountain View Road, Warren, NJ 07059**

Address

By: ✓

Signature

**Charles R. Croyle**

Typed Name

**Attorney-in-Fact**

Title

Attest: ✓



\_\_\_\_\_  
CHAIRMAN, Railroad Commission of Texas

\_\_\_\_\_  
COMMISSIONER, Railroad Commission of Texas

\_\_\_\_\_  
COMMISSIONER, Railroad Commission of Texas

ATTEST: \_\_\_\_\_

NOTE: The following documents should be provided to the Commission with the original bond instrument: Principal (1) Original power of attorney, or (2) Certified corporate resolution and certificate of incumbency for signatories; Surety - Original power of attorney for signatory and documentation that surety is licensed to do business in Texas.



**Chubb  
Surety**

**POWER  
OF  
ATTORNEY**

**Federal Insurance Company  
Vigilant Insurance Company  
Pacific Indemnity Company**

**Attn: Surety Department  
15 Mountain View Road  
Warren, NJ 07059**

Know All by These Presents, That **FEDERAL INSURANCE COMPANY**, an Indiana corporation, **VIGILANT INSURANCE COMPANY**, a New York corporation, and **PACIFIC INDEMNITY COMPANY**, a Wisconsin corporation, do each hereby constitute and appoint **Tod E. Aronson, Charles R. Croyle, Gregory J. Magnus, Marcella M. Nestor, Nadine R. Weilersbacher** and **Georganne Yandura of Pittsburgh, Pennsylvania**

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** have each executed and attested these presents and affixed their corporate seals on this **10th** day of **February, 2012**.

  
Dawn M. Chloros, Assistant Secretary

  
David B. Norris, Jr., Vice President

STATE OF NEW JERSEY

County of Somerset

ss.

On this **10th** day of **February, 2012** before me, a Notary Public of New Jersey, personally came Dawn M. Chloros, to me known to be Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY**, the companies which executed the foregoing Power of Attorney, and the said Dawn M. Chloros, being by me duly sworn, did depose and say that he is Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Notarial Seal



**KATHERINE J. ADELAAR  
NOTARY PUBLIC OF NEW JERSEY  
No. 2316685  
Commission Expires July 16, 2014**

  
Notary Public

### CERTIFICATION

Extract from the By-Laws of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY**:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Dawn M. Chloros, Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this **12th** day of **October, 2016**



  
Dawn M. Chloros, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903- 3493 Fax (908) 903- 3656

e-mail: [surety@chubb.com](mailto:surety@chubb.com)

# Delaware

The First State

Page 1

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED ARE TRUE AND CORRECT COPIES OF ALL DOCUMENTS ON FILE OF "ALCOA USA CORP." AS RECEIVED AND FILED IN THIS OFFICE.

THE FOLLOWING DOCUMENTS HAVE BEEN CERTIFIED:

CERTIFICATE OF INCORPORATION, FILED THE TENTH DAY OF MARCH, A.D. 2016, AT 4:27 O`CLOCK P.M.

CERTIFICATE OF AMENDMENT, CHANGING ITS NAME FROM "ALCOA UPSTREAM OPERATING CO." TO "ALCOA USA`CORP.", FILED THE FOURTEENTH DAY OF MARCH, A.D. 2016, AT 3:52 O`CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID CERTIFICATES ARE THE ONLY CERTIFICATES ON RECORD OF THE AFORESAID CORPORATION, "ALCOA USA CORP.".



  
Jeffrey W. Bullock, Secretary of State

5985682 8100H  
SR# 20166236182

You may verify this certificate online at [corp.delaware.gov/authver.shtml](http://corp.delaware.gov/authver.shtml)

Authentication: 203172494  
Date: 10-17-16

CERTIFICATE OF INCORPORATION  
OF  
ALCOA UPSTREAM OPERATING CO.

State of Delaware  
Secretary of State  
Division of Corporations  
Delivered 04:27 PM 03/10/2016  
FILED 04:27 PM 03/10/2016  
SR 20161596549 - File Number 5985682

FIRST: The name of this corporation is ALCOA UPSTREAM OPERATING CO.

SECOND: The address of this corporation's registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, New Castle County, Wilmington, DE 19801. The corporation's registered agent at such address is The Corporation Trust Company.

THIRD: The purpose of the corporation is:

To engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware.

FOURTH: The total number of shares of stock which this corporation is authorized to issue is 1000 shares of common stock, \$1.00 par value.

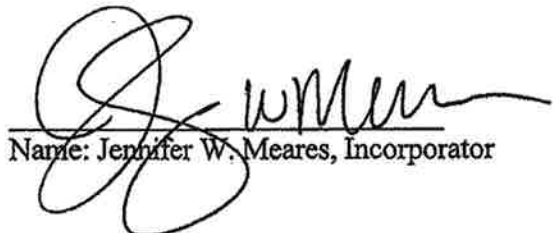
FIFTH: The name and address of the incorporator is as follows:

Jennifer W. Meares  
Alcoa Inc.  
201 Isabella Street  
Pittsburgh, PA 15212

SIXTH: The Board of Directors shall have the power to adopt, amend or repeal the by-laws.

SEVENTH: No director shall be personally liable to this corporation or its stockholders for monetary damages for any breach of fiduciary duty by such director as a director. Notwithstanding the foregoing sentence, a director shall be liable (i) to the extent provided by applicable law, (ii) for breach of the director's duty of loyalty to this corporation or its stockholders, (iii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iv) pursuant to Section 174 of the Delaware General Corporation Law, or (v) for any transaction from which the director derived an improper personal benefit. No amendment to or repeal of this Article Seventh shall apply to or have any effect on the liability or alleged liability of any director of this corporation for or with respect to any acts or omissions of such director occurring prior to such amendment.

IN WITNESS WHEREOF, the undersigned, being the incorporator herein before named, has executed, signed and acknowledged this certificate of incorporation this 10<sup>th</sup> day of March, 2016.

  
Name: Jennifer W. Meares, Incorporator

State of Delaware  
Secretary of State  
Division of Corporations  
Delivered 03:52 PM 03/14/2016  
FILED 03:52 PM 03/14/2016  
SR 20161645153 - File Number 5985682

**CERTIFICATE OF AMENDMENT  
OF  
CERTIFICATE OF INCORPORATION  
BEFORE PAYMENT OF CAPITAL  
OF  
ALCOA UPSTREAM OPERATING CO.**

I, the undersigned, being the sole incorporator of ALCOA UPSTREAM OPERATING CO., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware,

**DO HEREBY CERTIFY:**

**FIRST:** That Article FIRST of the Certificate of Incorporation be and it hereby is amended to read as follows:

**"The name of the company is ALCOA USA CORP.", and**

**SECOND:** That the corporation has not received any payment for any of its stock.

**THIRD:** That the amendment was duly adopted in accordance with the provisions of section 241 of the General Corporation Law of the State of Delaware.

**IN WITNESS WHEREOF, I have signed this certificate this 14<sup>th</sup> day of March, 2016 .**

  
Jennifer W. Meares

**TABLE .116-1****ALCOA USA CORP. OFFICERS (as of November 2016)**

<b>OFFICER</b>	<b>TITLE OF OFFICER'S POSITION</b>	<b>DATE POSITION ASSUMED</b>
Roy C. Harvey	President	November 1, 2016
Tomas Mar Sigurdsson	Vice President	November 1, 2016
Ron Barin	Vice President	November 1, 2016
A. Sue Zemba	Vice President	November 1, 2016
Mark Stiffler	Vice President	November 1, 2016
Francesco Bassoli	Vice President, Procurement	November 1, 2016
Robert S. Collins	Vice President, Controller	November 1, 2016
John Kenna	Vice President, Tax	November 1, 2016
Renato C.A. Bacchi	Vice President, Treasurer	November 1, 2016
Marissa P. Earnest	Secretary	November 1, 2016
Jackie D. Myers	Assistant Secretary	November 1, 2016



TABLE .116-2

ALCOA USA CORP. DIRECTORS (as of November 2016)

DIRECTOR		DATE POSITION ASSUMED
Mary Anne Citrino	Senior Advisor, The Blackstone Group L.P.	November 1, 2016
Timothy Flynn	Former Chairman and CEO, KPMG	November 1, 2016
Kathryn Fuller	Chair, the Smithsonian's National Museum of Natural History	November 1, 2016
Roy Harvey	CEO, Alcoa Corporation	November 1, 2016
James Hughes	Former CEO of First Solar, Inc.	November 1, 2016
Michael Morris	Former Chairman and CEO, American Electric Power Company, Inc.	November 1, 2016
James Nevels	Founder and Chairman, The Swarthmore Group	November 1, 2016
James Owens	Former Chairman and CEO, Caterpillar Inc.	November 1, 2016
Carol Roberts	Senior Vice President and CFO, International Paper Company	November 1, 2016
Suzanne Sitherwood	President and CEO, Spire Inc.	November 1, 2016
Steve Williams	President and CEO, Suncor Energy Inc.	November 1, 2016
Ernesto Zedillo	Former President of Mexico and current Director, Yale Center for the Study of	November 1, 2016





## Office of the Secretary of State

The undersigned, as Secretary of State of Texas, does hereby certify that the attached is a true and correct copy of each document on file in this office as described below:

Alcoa USA Corp.  
Filing Number: 802538192

Application for Registration

September 08, 2016

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on September 15, 2016.



A handwritten signature in black ink, appearing to read "Cascos", followed by a horizontal line.

Carlos H. Cascos  
Secretary of State



## Office of the Secretary of State

### Certificate of Fact

The undersigned, as Secretary of State of Texas, does hereby certify that the document, Application for Registration for Alcoa USA Corp. (file number 802538192), a DELAWARE, USA, Foreign For-Profit Corporation, was filed in this office on September 08, 2016.

It is further certified that the entity status in Texas is in existence.

It is further certified that our records indicate C T CORPORATION SYSTEM as the designated registered agent for the above named entity and the designated registered office for said entity is as follows:

1999 BRYAN ST., STE. 900

DALLAS, TX - 75201 3136 USA

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on September 15, 2016.



A handwritten signature in black ink, appearing to read "Cascos", followed by a horizontal line.

Carlos H. Cascos  
Secretary of State



## Office of the Secretary of State

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A handwritten signature in black ink, appearing to read "Cascos", followed by a horizontal line.

Carlos H. Cascos  
Secretary of State



## Office of the Secretary of State

September 15, 2016

A search of our records reveals the following information for the entity record selected.

Entity Name: Alcoa USA Corp.  
Registered in Texas as: Alcoa USA Corp.  
Entity Type: Foreign For-Profit Corporation  
Jurisdiction: DELAWARE, USA  
File Number: 802538192  
Registered: September 08, 2016 Effective: September 08, 2016

The status of the entity is in existence.

The name and address of the registered agent and office in Texas is:

C T CORPORATION SYSTEM  
1999 BRYAN ST., STE. 900  
DALLAS, TX 75201-3136  
USA

The entity recorded the following assumed name(s) with this office:

The entity has not recorded any assumed name certificates with this office.

The management information from our computer records lists:

ROY C HARVEY  
DIRECTOR

201 ISABELLA STREET  
PITTSBURGH, PA 15212  
USA

Document No. 8039

Filed 30 day of Sept  
in 2016, At 11:20 A M.  
BARBARA VANS  
County Clerk, Milam County, Texas  
By Linda Hall  
Deputy

**NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.**

**DEED WITHOUT WARRANTY**

**Date:** September 30, 2016

**Grantor:** Alcoa Inc. (formerly known as Aluminum Company of America)

**Grantor's Mailing Address:** 201 Isabella Street  
Pittsburgh, PA 15212-5858

**Grantee:** Alcoa USA Corp.

**Grantee's Mailing Address:** 201 Isabella Street  
Pittsburgh, PA 15212-5858

**Consideration:** Ten and no/100 Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged.

**Property (including any improvements):**

33,841.09 acres, more or less, and all easements thereto, being 34,234.263 in Tracts 001 through 040 and Tract 047, save and except 393.173 acres in Tracts 041 through 046, leaving a total of 33,841.09 acres, more or less, conveyed by this deed, all as more particularly described in Exhibit A, attached hereto and made a part hereof for all purposes. The Property includes all of Grantor's real property and improvements located in Milam, Lee and Bastrop Counties, Texas, whether or not specifically described or excepted in Exhibit A.

**Reservations from Conveyance:** None.

**Exceptions to Conveyance:**

All validly existing easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded and validly existing instruments that affect the Property, including without limitation any reservation of oil, gas, coal, lignite or other minerals; all rights, obligations, and other matters arising from and existing by reason of any governmental district, agency or authority having jurisdiction; and taxes for 2016, which Grantee assumes and agrees to pay, and subsequent assessments for that and prior years due to change in land usage, ownership, or both, the payment of which Grantee assumes.

CLERK'S NOTICE: ANY PROVISION HEREIN WHICH RESTRICTS THE SALE, RENTAL OR USE OF THE DESCRIBED REAL PROPERTY BECAUSE OF COLOR OR RACE, IS INVALID AND UNENFORCEABLE UNDER FEDERAL LAW.

FILED  
AT 11:20 O'CLOCK A M  
ON THE 30 DAY OF Sept  
A.D., 20 16.

Barbara Vansa  
COUNTY CLERK, MILAM COUNTY, TEXAS  
BY Linda Hall DEPUTY

STATE OF TEXAS  
COUNTY OF MILAM

I hereby certify that this Instrument was FILED on the date  
and at the time stamped hereon by me and was duly  
RECORDED in the Volume and Page of the Official Records  
of Milam County, Texas.



Barbara Vansa  
County Clerk, Milam County, Texas  
VOL. 1291 PAGE  
RECORDED 9-30-16 2:51 P  
BY Linda Hall DEPUTY

Doc No. 8059

8059

**NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.**

**DEED WITHOUT WARRANTY**

**Date:** September 30, 2016

**Grantor:** Alcoa Inc. (formerly known as Aluminum Company of America)

**Grantor's Mailing Address:** 201 Isabella Street  
Pittsburgh, PA 15212-5858

**Grantee:** Alcoa USA Corp.

**Grantee's Mailing Address:** 201 Isabella Street  
Pittsburgh, PA 15212-5858

**Consideration:** Ten and no/100 Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged.

**Property (including any improvements):**

33,841.09 acres, more or less, and all easements thereto, being 34,234.263 in Tracts 001 through 040 and Tract 047, save and except 393.173 acres in Tracts 041 through 046, leaving a total of 33,841.09 acres, more or less, conveyed by this deed, all as more particularly described in Exhibit A, attached hereto and made a part hereof for all purposes. The Property includes all of Grantor's real property and improvements located in Milam, Lee and Bastrop Counties, Texas, whether or not specifically described or excepted in Exhibit A.

**Reservations from Conveyance:** None.

**Exceptions to Conveyance:**

All validly existing easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded and validly existing instruments that affect the Property, including without limitation any reservation of oil, gas, coal, lignite or other minerals; all rights, obligations, and other matters arising from and existing by reason of any governmental district, agency or authority having jurisdiction; and taxes for 2016, which Grantee assumes and agrees to pay, and subsequent assessments for that and prior years due to change in land usage, ownership, or both, the payment of which Grantee assumes.

Grantor, for the Consideration and subject to the Reservations from Conveyance and the Exceptions to Conveyance, grants, sells, and conveys to Grantee the Property, together with all and singular the rights and appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's successors and assigns forever, without express or implied warranty. All warranties that might arise by common law as well as the warranties in section 5.023 of the Texas Property Code (or its successor) are excluded.

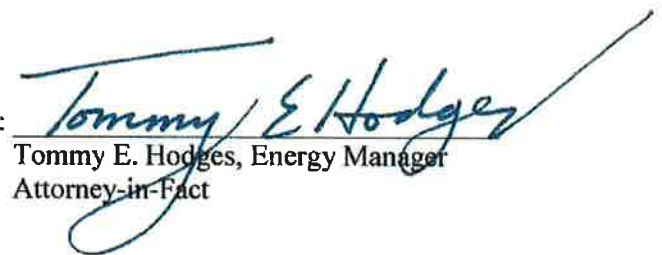
This conveyance is intended to include any property interests obtained by after-acquired title.

**GRANTEE SPECIFICALLY ACKNOWLEDGES THAT THE PROPERTY IS CONVEYED TO GRANTEE BY GRANTOR ON AN "AS IS, WHERE IS, WITH ALL FAULTS" BASIS AND THAT THERE ARE NO REPRESENTATIONS OR EXPRESS OR IMPLIED WARRANTIES OF ANY KIND WHATSOEVER, FROM GRANTOR, ITS AGENTS, OR REPRESENTATIVES, AS TO ANY MATTERS CONCERNING THE PROPERTY.**

When the context requires, singular nouns and pronouns include the plural.

Alcoa Inc.

By:

  
Tommy E. Hodges, Energy Manager  
Attorney-in-Fact

STATE OF TEXAS                   §  
   §  
COUNTY OF MILAM           §

This instrument was acknowledged before me on this 29<sup>th</sup> day of September, 2016, by Tommy E. Hodges, Energy Manager, Attorney-in-Fact, for Alcoa Inc., a Pennsylvania corporation, on behalf of said corporation.



  
Notary Public, State of Texas

VOL. 1291 PAGE 322  
OFFICIAL RECORDS  
MILAM COUNTY, TEXAS



**NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.**

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**Date:** September 30, 2016

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**Grantor's Mailing Address:** 201 Isabella Street  
Pittsburgh, PA 15212-5858

**Grantee:** Alcoa USA Corp.

**Grantee's Mailing Address:** 201 Isabella Street  
Pittsburgh, PA 15212-5858

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When the context requires, singular nouns and pronouns include the plural.

Alcoa Inc.

By:

  
Tommy E. Hodges, Energy Manager  
Attorney-in-Fact

STATE OF TEXAS                   §  
  §  
COUNTY OF MILAM           §

This instrument was acknowledged before me on this 29<sup>th</sup> day of September, 2016, by Tommy E. Hodges, Energy Manager, Attorney-in-Fact, for Alcoa Inc., a Pennsylvania corporation, on behalf of said corporation.



  
Notary Public, State of Texas



DEED  
201612950  
221 PGS

**NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.**

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When the context requires, singular nouns and pronouns include the plural.

**Alcoa Inc.**

By: Tommy E. Hodges  
Tommy E. Hodges, Energy Manager  
~~Attorney-in-Fact~~

STATE OF TEXAS                   §  
   §  
COUNTY OF MILAM           §

This instrument was acknowledged before me on this 29<sup>th</sup> day of September, 2016, by Tommy E. Hodges, Energy Manager, Attorney-in-Fact, for Alcoa Inc., a Pennsylvania corporation, on behalf of said corporation.



Karolyn Koppel Puccio  
Notary Public, State of Texas

FILED AND RECORDED  
OFFICIAL PUBLIC RECORDS

*Rose Pietsch*

September 30, 2016 09:41:19 AM

DOCKJ FEE: \$902.00

ROSE PIETSCH, County Clerk

Bastrop, Texas

DEED

201612950



POA  
201613604  
2 PGS

REAL PROPERTY RECORDS  
LEE COUNTY, TX  
#2016-02223 10/05/2016 at 01:55:00 PM  
8137

### SPECIAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS that Alcoa USA Corp, (hereinafter "Alcoa"), a Delaware corporation, does hereby name, constitute and appoint Tommy Hodges, Energy Manager, Rockdale, Texas Operations, to be Alcoa's true and lawful attorney-in-fact and in Alcoa's name, place and stead, to enter into and execute on behalf of Alcoa's Rockdale, Texas Operations, the following described documents:

1. Any agreement, deed, or other document that relates to the sale of real or titled property owned by Alcoa; any agreement or document that grants an easement on property owned by Alcoa; and any agreement, lease or other document that provides for the lease of any real property owned by Alcoa.
2. Any agreement, deed or other document that related to the purchase of real or titled property on behalf of Alcoa; any agreement or document in which Alcoa is granted an easement on property owned by others for the benefit of Alcoa; and any agreement, lease or other document that provides for the lease of any real property on behalf of Alcoa.
3. Any environmental permit applications, reports and other information requested by the appropriate Federal or State environmental regulatory agencies, as the representative assuming the duties deemed necessary-. or appropriate to the conduct of the business of Alcoa's Rockdale, Texas Operations.-

Alcoa grants to said attorney-in-fact full power and authority to do, take and perform all and every act and thing whatsoever requisite, proper and necessary to be done in the exercise of any of the rights and powers herein granted hereby ratifying and confirming all that said attorney-in-fact lawfully does or causes to be done by virtue of this power of attorney and the rights and powers herein granted. The rights, powers and authority of said attorney-in-fact granted herein will commence on the date hereof and will remain in full force and effect until either the appointee above, Tommy E. Hodges the Energy Manager ceases to be the Energy Manager of Alcoa's Rockdale, Texas Operations or until revoked.

Dated: SEPT. 23, 2016

RECORDER'S NOTE  
All or part of the text on this  
page was not clearly legible  
when presented for recordation.

Alcoa USA Corp.

VOL. 1292 PAGE 292  
OFFICIAL RECORDS  
MILAM COUNTY, TEXAS

BY:

John Kenna  
John Kenna

TITLE: Vice President, Tax

VOL 1195 PG 0275

COMMONWEALTH OF PENNSYLVANIA §  
§  
COUNTY OF ALLEGHENY §

BEFORE ME, a Notary Public in and for the Commonwealth and County aforesaid, on this day personally appeared John Kenna known to be the Vice President, Tax, of Alcoa USA Corp., and signed, acknowledged and delivered the foregoing Special Power of Attorney.

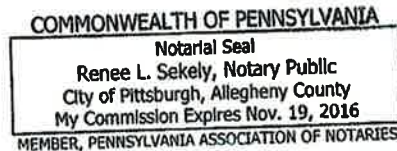
Witness my hand and official seal this 23<sup>rd</sup> day of September, 2016.

Renee L. Sekely  
Notary Public

FILED AND RECORDED  
OFFICIAL PUBLIC RECORDS

Rose Pietsch

October 12, 2016 03:59:07 PM  
RPIETSCH FEE: \$30.00  
ROSE PIETSCH, County Clerk  
Bastrop, Texas  
201613604



CLERK'S NOTICE: ANY PROVISION HEREIN WHICH RESTRICTS THE SALE, RENTAL OR USE OF THE DESCRIBED REAL PROPERTY BECAUSE OF COLOR OR RACE, IS INVALID AND UNENFORCEABLE UNDER FEDERAL LAW.

FILED  
AT 11:15 O'CLOCK A M  
ON THE 5 DAY OF OCT  
A.D., 20 16

STATE OF TEXAS  
COUNTY OF MILAM

I hereby certify that this instrument was FILED on the date and at the time stamped hereon by me and was duly RECORDED in the Volume and Page of the Official Records of Milam County, Texas.



Barbara Vansa  
County Clerk, Milam County, Texas  
VOL. 1292 PAGE 292

RECORDED 10-5-16 2 5P  
BY Linda Hall DEPUTY

Barbara Vansa  
COUNTY CLERK, MILAM COUNTY, TEXAS  
BY Jodi Morgan DEPUTY

2/30cc

VOL. 1292 PAGE 293  
OFFICIAL RECORDS  
MILAM COUNTY, TEXAS

RECORDER'S NOTE  
All or part of the text on this page was not clearly legible when presented for recordation.

10/06/2016 at 01:58 PM  
# 2016-02933  
FILED FOR RECORD  
SHARON BLASIG  
COUNTY CLERK  
LEE COUNTY, TX

VOL 1195 PG 0276